WASHINGTON-Unsuspected and difficult to diagnose infection, often of fungal ctiology, may explain "unexplained" fever in cancer patients, investigators from the Division of Infectious Diseases at Indiana University School of Medicine, Indianapolis, told the 15th Interscience Conference on Antimicrobiel Agents and Chemotherapy sponsored by the American Society for Microbiology.

Important clues to the presence of infection are the type of neoplasm, the (FUO) in 36 cancer patients seen durgranulocyte count and clinical or laboratory abnormalities indicating apecific organ involvement, they suggested.

"While many neopiasms are capable of causing fever without the presenca

Batore prescribing, plaase concul

indications: Tension and anxiely

complate product information, a sum-

stetes; sometic complaints which are

concomitants of emotional factors: psy-

choneurotic statas menifested by tension,

sive symptoms or egitation, eymptomatic

relief of acute agitation, tremor, delirium

Iremens and hallucinosis due to acute

alcohol withdrawal; adjunctively in skala-

tal muscla spasm due to reflax spesm to

local pathology, spaelicity caused by

uppar motor nauron disorders, athetosis

stiff man syndroma, convulsive disorders

(not for sola therapy).
Contraindicated: Known hypsrsensi-

livity to lha drug. Children under 6 months of age. Acule narrow angle glau-

coma; may be usad in pallants with opan

angle gleucoma who ere recalving appro-

patients. Caulion agains! hazardous

occupatione requiring complate mantel

vulsiva disordars, possibility of increase

standard anticonvulsent medication:

abrupt withdrawal may be associated

with temporary increase in frequency and/or severity of seizuras. Advise

alertness. When used adjunctively in con-

In fraquency and/or severity ol grand mail

selzures may require increased dosaga of

against simultanaous ingestion of alcohol

and other CNS depressents. Withdrawal

sympioms (similar to those with berbitu

rales and alcohol) have occurred follow-

ing abrupt discon!Inuenca (convulsions.

tramor, abdominal and muscla cramps,

vomiting and sweating). Kaap eddiction-

prona individuals undar careful surveil-

lanca because of their predisposition to

aga, weigh potential benefil against-possible hezard.

psycholropice or anticonvulsants, con-

sidar carefully phermacology of agents

amployad; drugs such as phanothiazinaa narcotics, barbiturates, MAO inhibitors

and other antidepressants may polenitate its action. Usual precautions indicated in

danraesion, or with suicidal tendancias,

Obsarva usual precautions in impaired

debililated to precluda ataxia or over-

patianis severely dapressed, or with lalant

renal or hapatic function. Limit desage to

dipiopia, hypolansion, changes in libido,

nausea, fatigua, dapression, dysarthria,

aundice, skin raah, ataxla, constipation.

vation, slurred speech, Iramor, vertigo,

urinary retention, blurred vialon. Para-

doxical reactions such as acuta hypar-

excited steles, anxiaty, hallucinations,

increased muscla apasticity, insomnia.

raga, slaep diaturbancas, stimulation

have bean reported; should these occur.

discontinua drug. Isolated reports of neu-

and tiver function tests advisable during

long-tarm !harapy.

eadacha, incontinenca, changes in sail-

Sida Effacts: Drowsinass, confusion,

habituation and dapendance. In preg-nancy, laciation or woman of childbearing

Precautions: If combined with other

Warninge: Not of valua in psychotic

anxiety, apprehension, fatigua, depres-

mery of which follows:

either by virtue of their disease or because of therapcutic agents used in trentment, which tend to make them more susceptible to opportunistic infections," said Dr. Friedrich C. Luft, head of the research team.

Patient Acutaly III

He and Drs. J. Peter Rissing, Arthur White, and Geo. F. Brooks, evaluated the causes of fever of unexplained origin therapy with combinations of antibinties ing a 30-month period. Sixteeo paticats had lymphoma, 12 leukemia, and eight

If there's

good reason to prescribe for psychic tension...

When, for example,

reassurance and counseling

on repeated visits

are not enough

2-mg, 5-mg,

10-mg tablets

compromised immune mechanisms, least three weeks duration; fever higher our patients had infections. And it was than 38.3 degrees centigrade un several occasions; und an uncertain diagnusis after one week in huspital.

> "These criteria served tu exclude putients with fever due to self-limited viral infections and those with bueterial infections responsive to autibneterial therapy," Dr. Luft explinined, "These patients were acutely ill. They laid persistent fever in spite of autimicrobin which included gentamicin, cephaluthin end carbenicillin."

The research team anticipated that the majority of patients selected would Each patient met certain criteria: a prove to have fever secondary to neodiagnosis of malignant neoplasm docu-

not possible to rule not the presence of infection with absolute certainty in pa-tients who had fevers presumably due to their neuplasms."

Fungi were the cause of infection in nine of the 18 infected patients. Histoplusminsis was found in three patients, eandliliusis in three and aspergillosis, systemic spontrichosis and eryptococcal meningitis in une patient cach.

"This reflects the increasing Importance of fungi as a source of infection in mitients with empromised body de-

Six patients had unresolved pyogeaic infections, one had tuberculous penenrditis, and two had viral infections.

he said.

While the infected and noninfected group of putients had a number of features in cummun, for example age and sex distribution and mean duration of fever, several dislinguishing parameters were noted.

"In contrast, few of the noalafeeled patients and granulocytopeais. Only nne patient in this group had a granulocyte chunt of less than 1000/mm1."

Morphologic Exams Patticipants at the meeting, which Mnrphologic examination of biopsy

"Regardless, physicians' disgnostic efforts should not be deterred in such palients," Dr. Luft conlinued. "Repealed thorough cyaluations for infeclion are warranted."

Dr. Luft stressed, however, that diagnostic measures must be failured to the individual cancer patient. Noting that a large number of aggressive procedures were done in the apparently noninfected patients, he said: "These patients were able to withstand major diagnostic efforts whereas the often moribund lafected patients could not. In the latter instances, the physician and pallent to-gether must decide whether surgical diagnostic procedures and potentially toxic antimicrobial therapy will pro-long useful life or make dying difficult."

fenses," noted Dr. Luft.

In the 18 apparently nooinfected patients, fever appeared associated with some change in the neoplasm, according tn Dr. Luft. "Five of the six palients with solid lumors had noted new masses or swellings and lymphoma pslients often ind newly enlarged lymph nodes,"

"Absolute granulocyte counts were strikingly different for the two groups," said Dr. Luft. "In infected patients, marked granulocytopenia was evident. Eleven patients in this group had ahsolute granulocyte counts of less than 1000/mm³ and five others less than 3000/mm3.

Type of nenpinsm also distinguished infected from unninfected patients, accarding to Dr. Luft. All 12 knkemia putients hail infection.

nr uspiratinn specimens, with cultures, was the most productive diagnostic measure, the research team coacluded. "In infected patients, ilkely sites for productive blopsy procedures were clinically apparent. These included pulmonary infiltrates visible on chest roenigenograms or abnormalilies delected on physical examination. There was a paucity of abnormalities indical-Ing organ system involvement with Infection in the other 18 pattents.

a good reason to consider Valium (diazepam)

Medical Tribune

Vol. 14, No. 42

world news of medicine and its practice-fast, accurate, complete

Wednesday, November 14, 1973

and Medical News -

Is the Administration Taking **Research Control From NIH?**

By KEN SANILER Atedied Tribune Staff

WASHINGTON-A secret meeting of two furmer secretaries of the Department of Health, Education, and Welfare, a former head of the Nutional Institutes of Health, the president of the National Academy of Sciences, a former U.S. Surgen General, the deams of three major medical schools, and prominent researchers, was convened here to discuss the implications of allegations that the

Nixon Administration is taking control of the NIH's biomedical research out of the hands of the rescurchers and physicians and transferring it to lawyers and politicians within the Administration—and is firing guvernment scientists who oppose the new policy.

The group has asked the National Academy of Sciences to conduct an investigation of this nlieged removal of research policy deeisions from the scientists, and reliable sonrces cluse to Sen. Abraham Ribicoff

SER. A. RISICOFF. (D.-Conn.) stated

that he will hold open hearings-at which NIII officials will be called on to testify-on the Covemment's research policies within the nest few months.

Scientists at NIH, the Food and Drug Administration's Hureau of Hiologies, and other ufficials confirmed, in discussions with Medical Thirdner, some of the charges that murale has been wrecked by the Nixon policies. Because of the delicacy of the situation t"critithe Administration, and you'll be looking for a new label. Atherosclerosis May Signify looking for a new job"), MEDICAL TRIB-UNE agreed to not-for-attribution inter-

was informally sponsured by Senator Ribicoff, himself a former Secretary of HBW, included Wilbur J. Cohen, another former HEW Secretary, now ilean of the School of Education at the Uni-Continued on page 20

INSIDE THIS ISSUE

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- · Siudy says MIs noi linked to coffee, pg. 28.

BETHESDA, Mn.-Atherosclerosis in nian eases.

may he caused by the reversion of his

arterial wall to an evolutionary primitive

state similar to that of the arterial wall

of the lobster, snys Kolomon Laki, Ph.D., of the National Institute of Ar-

Return to Lobsterlike State

French for lobster).





Dr. Joseph Bookstein, a railfologist from the University of Michigan, has developed a techniqua for using a modified clot of the patient's own blood and placing it is n damaged arriery to control internol bleeding (see story, page 13). Left, light spot (at arrow) on anglogram shows puddling from lesion is left gastric ertery. Bleeding persisted despite transcattleter hemostasis with vasopressors. A 1-cc. clot was trented with thrombin and forecil through the cotheter. Anglogram n few minutes later (right) shows absence of lesion. Control was essectionly permanent, eince no rebleeding occurred.

Hormone Test Aids in Choice Of Therapy for Breast Tumor

SAN DIEGO, CALIF.-A 24-hour in vitro assny, which indicates that about half of all breast tumors depend on one or more hormones for their growth, is now helping clinicians decide whether a mastectomy is necessary or whether the tumor growth can be suppressed by drug therapy or by surgical techniques,

Dr. John R. Hobbs, of the Tumor Bi-

ology Group, Westminster Hospital Group, London, told a seminar at the Scripps Clinic liere.

In the test, n silee of tunior tissue is incubated for 24 hours in medium contalaing projectin or some other hormone and compared with a similar slica Incubated without the hormono in the samo niedium. If tumor tissua growth depende teeted visually or by on increase in the

thritis, Metabolism, and Digestive Dis-To emphasize his theory, Dr. Lak! prefers to call atherosclerosis "langoustion the hormone, the effect cao be dezation of the arteries" (from langouste, activity of the cancer-related cnzyme, dehydrogenaso, he explained. Clinical experience indicates that five

petients with tumors shown to be proloctin-dependent in the tast underwent periods of regression when the pituitary was removed, Dr. Hobbs stated, explaining that the pituitary gland controls the production of prolectin. In other cases when prolectin levels returned to normal after the removal of the pituitary, tha Saadoz drug CB-154 reduced prolactin and also caused a positive regression of the breest tumor. This drug (2-bromo-aergocryptina) is not yet available in the United States.

Similarly, in nina of 10 patients whose breast cencers were shown in the test to depend on estrogen, positive regression wee Observed wheo thair ovaries were removed or when they were treated with testosterone or antiestrogen drugs.

大大大

In five petients whose tumors were dependent on androgen, as seen in the test, adrenelectomy or treetment with an antiandrogen drug caused regression in four.

The test now indicates that there are at least five types of hormooe-dependent breast tumore. They include those that depend on prolactin only, prolactin and estrogen, prolactlo and tastostcrone, testosterone only, and estrogen only.

"Where combined dependence is pres-Continued on page 24



By NATHAN HORWITZ Medical Telbune Staff

on's comprehensive health care program was in near disarray by the mid-60s. Physician discontent was at a peak, the "broin drain" was in full swing, and even Confinental advocates of national health insurance were pointing to Britain as a good example of how not to do it. How the British worked their way out of the mess is fold in this second of a series of articles on the Notional Health Service.

LONDON-As Britain's National Health century, the nation's 23,000 general Practitioners are n good deal less tired than they were a few years ago.

They also are better paid, mora essured of themselves, and gaining immeasurably in public esteem and professional status.

A recent national survey showed that per cent of patients questioned were satisfied with the health care they were gelling. The criticisms of 9 per cent were leveled largely at problems of hospitol service and admissions for elective pro-

Annther sign of the times is thet geo-Service moves into its second quartercentury moves into its second quartercentury moves into its second quartercentury moves into its second quarterchoice among medical students. And still aunther is that Britein's medical schools now have eight chairs of general practice or family practice. Two years ago there Were oone.

This is a far cry from the pictura ia the early '60s, when British G.P.s, along with other physiciens, were emigrating to Canada, Australia, and the United States.

"That was a period," recalled Dr. Donald Irvina, secretary of the Royal College of General Practitioners, "when going into general practice meant golog

Continued on page 28



DR. DENNIS COOK the Contest for Dali Prints. See Pg. 21

Lack of Funds Forces Pasteur to Cut Staff

PARIS-Threatened by dwindling funds and a straitened budget, the 85-yearold Pasteur Institute announced that it will cut its 1,120-member staff by a little ever 10 per cent: between 125 and 135 people will soon be facing dismissal.

"It is a question of maintaining the institute in existence or shutting dewn," its director, Prof. Jacques Monod, said.

The institute was originally established ns an antirahies center in November. t888, three years after nine-year-old Joseph Meister heeame the first patient hitten by a rahid deg to receive the 10day series of immunizations developed hy Louis Pasteur. In the worke of the success of the immunization, 2,500 victims of rabid bites underwent therapy.

Donations te establish the institute came from people all over the world. including the ezar of Russia, the sultan ef Turkey, and the emperor of Brazil. Its dedication, which came twe years after Pasteur had received the Reynard Prize for his work on rabics, was attended by the president of France and



MBEICAL TRIBUNE

Government that amount to about 15,-000,000 (ranes. Between 1970 mill 1973, however, payroll costs alone rose from 23,000,000 to 34,000,000 tranes, with an accempanying personnel increase of only 70, Professor Monod said.

ther notables.

He is hoping for subsidy increases
At present the institute receives anthat, when added to the proposed pay-

nual research subsidies from the French roll saving, would give the institute ar additional 10,000,000 francs a year and its continuing independence. He emphasized that foreseen staff cuts would take place only in what he called "the lesser disciplines," and reaffirmed top priorities for the institute's research in microbiology, immunology, fundamental bio-chemistry, and mulecular biology.

Penicillin-Group Drugs Still Most Popular Antibiotics

ATHENS-Drugs of the penicillin greup and those related to it are still used almost as often as all ether antibletics combined, according to an analysis of prescribing practices relating to more than 15,000 hespital patients in three ceuntries. Tetracyclines and cephalosporins at and in second and third placa, and gentamicin is increasingly mere popular than kanamyein, Chloramphenicol has not been used often since 1971.

Reporting these data from the Beston Collaborative Drug Surveillance Program, which groups nine hospitals in the United States, Canada, and Isrnel, Dr. I. gram. Borda told the eighth International Congress of Chemothernpy here that adverse reactions were most often gastrointestinal.

Amplelllin, neomycin, and telrneycline wera incriminated in about two-thirds of the GI reactions, most of which were mild or moderate.

Dr. Borda, of the University ef Westem Ontarie, London, Ont., commented; "Nausea, vemiting, diarrhea, anorexia. and such symptoma are notoriously difficult to evaluate in sick people. They cannot ba 'measured,' neither can bility of a placebo effect be ignored."

Mora than one-half ef the akin reactiens were attributed to the penicillinempiciliio group. Ampicillin was held responsible 101 times; the penicillins, although more often used, only 57 times.

Kanamycin, gentamicin, ueomycin, and tetracycline were related to most of the renal effects. Relatively few hematelogic reactions were recorded.

Feur deaths were attributed to antiblotics. Superinfection bad developed in three of the four cases. In two it was a grnm-negative septicemia and in the third a massive necrofizing pneumonia dua to J. Silversteln, director of the Multidistreatment was given to two of these

"Four lichtlis in clesa to 10,000 pntients treated with untilileties, a rate of ene in every 2,500, is reintively tew," Dr. Berda obscrycii. "Nevertheless, it reinforces the concept that chemethernpcutle treatment ba given with specific indications, restricted te necessary drugs, and special nitentien be paul te con-

comitant steroid administration." Dr. Berda alse reperted that three types of serieus drug-Induced eventscenvulsiens, deafness, and anaphylaxishave recently been studied in the pro-

Among 12,617 patients, drug-attributed convulsiens occurred in 17 (1.3 per 1,000). Out ef 1,245 patients given intraveaous penicillin, feur had convulsions (3.2 per 1,000). Nena ef tha patlents bad epilepsy or elher diseases affecting the central nerveus system.

Health Falls Challenge

VLAARDINGEN, THE NETHERLANDS The Dutch Conneil for Health Awates ness did not believe that man is us healthy as he thinks and, to prove it, examined 200 citizens who had dechired themselves to be "healthy." Results: 52 referrals to specialists and 65 referrals to general practitioners.

High dosage or renal impairment or hoth were present in all four patients affected, resulting in high blood penicillin levels. No cenvulsions occurred in 2,398 partients who received oral or intramuscular peniellins. One patient had seizures nttributed te high deses of isoniazid, a drug received by 475 patients.

Ameng 11,526 patients, 32 suffered drug-related deafness (three per 1,000). The amineglycoside antiblutics were the most frequently incriminated drugs, 13 in 1,000 exposed palients becoming deaf. Three patients ilied frem their underlying disease while still deaf. Only two of the 10 patients in whem the outcome was known recevered full hearing.

New Radioactive Agent May Enable Nonsurgical Detection of Metastases

Сніслоо—Preliminary results from a atudy of 75 cancar patients scanned after receiving a new radioactive pharmaceutical, bleomycin tagged with indlum111, offer promise of a nonsurgical means for accurate staging and earlier detection ef subclioical metastalic dis-

Excellent cerrelation with proven diagnosis was obtained in 59 patients (79 per cent accuracy) with primary er metastatio melanomas, carcinemas, sarcomas, and lymphemas, accerding to Dr. Melvin cipilnary Breast Clinic, University of Califernia, Los Angeles,

The fourth death was due to renal than in existing scanoing methods ap-failure in a patient who had received pears to be similar in an additional 75 the edema.

patients not included in the study because of insufficient follow-up.

"In cases we have studied, concentratien in the tumer is five to 25 times greater then in normal skeicial muscle," Dr. Sitverstein reperied, "What we need is the hardware to pick up that enncentratien. Once we get better scanning equipment, we hape to get tumors smaller than 2 cm., tumors net new adequotely scanned with existing equipment."

Labeled bleomycin, an antineoplastic antiblotic, concentrates in tomor to a much bighar degree than labeled gallium, which is currently used,

The accuracy rate, reportedly greater known, said Dr. Silverstein, but may be related to the inflammatory reaction and

CHINICAL NEWS NOTE: "Excessive budy of preformed vitamic A has resided serious toxic side effects, especially young children, and there is consider documentation to support this statement (Dr. Arnahl P. Gold; see "Cutrent Oin bm." page 6.1

Medicine: pgs. 1, 2, 3, 4, 5, 6, 10, 11, 13, 20, 21, 26, 28, 32

Minoratory relicensure for physicians is predicted within the next to year with specialty recertification also dee. 3

Cemmon preservatives found to ishibit growth and cause morphologic changes in human cells

Internal bleeding may be arrested by plugging the vesset with a modified clot from patient's own blood, a variation of transcatheterhemostasis!

Ob/Gyn: pgs. 12, 19

Monthly antifertility drug that block the production of specific reproduction hormones will be tested by a team of Salk investigators

Pediatrics: pgs. 7, 11, 31 Outlagueset foreign ebjects in the esophagus may produce respiratory symptoms that fool diagnosticians

Research: pgs. 1, 3, 4, 7, 8, 9,13 Dhnethy luminucthmul, the immediate precursor of choline, is found to returd the aging process of mice

Ling transplant feasibility is shown in connal tests in which lungs that week removed and then replaced had wife ally dormal structure and function ...

Surgery: pgs. 4, 5, 8, 10, 24, 11 Stone heart has been prevented by prophylactic use of hypothermia duing cardiae surgery

Bypass surgery for impending myocardial infarction results in increased mortality in patients with four or mort hemodynamic risk factors

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MPINCAL TRIBUNE is published each Medical Triaune is published with Morals Wednesday except on Jan. 31, May 36, Aug. 29, and Oct. 31, by Medical Tiberane, Inc., 880 Third Ave., New York, 10022. Controlled circulation passage paid at Farmingdale, N.Y., 1133, Subuription 312.50, Students, 37.30.

Smoke of Burning Synthetic Carpet Held Lethal Hazard

no denths during the test period in the

chamber at the same temperature ef

TRIHUNE, Dr. Dressler commeated that

solid data are lucking en the part played

by building and decorative materials in

from such disasters as nirplane crashes

and Ilres in effices, houses, er nursing

What the animal studies indicate, he

said, is that the chances for escape and

survival are good if a persen is exposed

only to smeke produced by smouldering,

provided the temperature remains fairly

ignited, you're in trouble," he centinued.

"The 'escape time' fer a rat is eae er two

minutes. We don't knew about the

human being-it's hard to extrapolate

from animal to man-but certainly tha

margin of safety is small once the ma-

terinl is ignited."

"But if synthetic fibers like acrylic are

In an interview with MEDICAL

Wednesday, November 14, 1973

CHCLGO-Animat experiments showing the death-dealing petential of smoke produced by flaming nerylic and nylon carreing were reported here hy a Harvard Medical School investigator, who urged that standards of biologic tolerance be established for synthetic fibers.

Tests of flammability are not adequate, Dr. Donald P. Dressler told the Clinical Congress of the American College of

Rats invariably dio—eften in less than two minutes—after inhaling smoke from ignited acrylic carpeting at a temperature otherwise computible with survival.

Dr. Dressler pointed out that synthetic fibers, such as nerylie, are now replacing gool in carpeting in schools, commercial buildings, and bomes.

Emphasizing that smoke inhalution accounts for more than 5,000 deaths each year, he said the studies he conducted jointy with Drs. Edna Butaney and Anne W. Phillips "clearly demenstrate that indiscriminate use of building and decorating materials may result in lethal

750 Rata Expesed to Smoke

In the experiments, seme 750 rnts were exposed in a controlled-atmosphere chamber to smoke preduced by standard scrylic rugs, wool rugs, or white pine wood. Temperature and humidity as well as smoke concentrations could be controlled and monitored.

Each type of material was either imited or allowed to smoulder in n combustion chamber. The smoke produced was cooled or heated as desired and then introduced into the animal chamber at a rate of 40 cubic feet per minute.

Smoke from smouldering material, Whalever its source, enused no denths if inhaled at room temperature, Dr. Dressfer said. As could be expected, he mided, the higher the temporatures, the greater the mortality, and mortality increased with length of exposure at mny given

But lests made of smoke from ignited rather than smouldering—matterials rerealed that the acrylic carpeting was deadly even at room temperature (25° C., "F.). All animals inhaling such smoke at this temperature died, and they frequestly did so within two minutes. Inter lesis showed that nylon carneting appeara to be "even more dangerous on ignition," ecording to Dr. Dressler.

By comparison, smeke from ignited

A Nonsteroid Drug Hopeful in Managing Prostate Carcinoma

Medical Tribune Report

CHICAGO -- A nonsteroid drug has brought fayorabla response in nine of 12 patients with advanced prostatic carcinoma. Three have been io complete remission for fore than 50 weeks, according to Dr. George R. Prout, Jr., and Dr. Robert J. Irwin, of Harvard Medical Scheel and Massachusetts General Hospitai.

The drug, oew called Schering 13521, is well tolerated. Three patients who were sexually potent before therapy have remained so. They continue to have normal levels of plasma testosterone and normal lesticular tissue activity. In six of the 12, a normal serum acid phosphatase was obtained. Nona had received prior hormonal therapy.

The drug dld net shew any clear-cut effect, however, on patients who had preflously received other forms of hormona therapy without benefit.

The drig has promise as a useful spent in the management of prostation carcinoma," Dr. Prout said.

The investigators gave their report at the Clinical Congress of the American College of Surgeons.

Degu Has 2 Thymuses



The degu, n ratlike rodent feund in the lower aithtudes ef the Andes Mountains ef Seuth America, pessesses an unusuai bielogic quirk—it has two anatomically separate thymus glands. Because of this, Dr. David Boraker, an immunotegist at the University of Verment, is developing a pedigreed colony for bielegic experimentation.

NIAIDTest Shows Level of Antibody To Mycoplasma

Medical Tribune Report
BETHESOA, MO.-A new test for detection ef antibedy te Mycoplasma pneumoniae, the organism responsible for outbreaks of acute respiratory infection during late summer and early fall, has been developed by Drs. Robert M. Chanock, chief of the Laboratery of Infections Diseases of the National Institute ef Allergy and infectious Disenses, and

Helmut Brunner, according to NIAID. The test utilizes a modified radieimmuneprecipitatien procedure in which small amounts of radioactively labeled myceplasma antigen are incubated with serum being tested for antihody. Antihuman gamma globulin or whole serum, prepared in animals, is then ailded to precipitate the antigen-antibedy complex and, after evernight incubation, the material is centrifuged

The amount of radicactivity in the precipitate indicates the nmeunt of antigen beund te specific antibody and the presence or lack of antibody in the serum sample, the investigators said.



Bobo's back at the big top

greatest show on earth. A rheumatoid arthritic flare-up kept him in the wings. Weeks of pain, stiffness, swelling and tenderness.

Next time, consider the prompt anti-Inflammatory action of Butazolldin alka when aspirin fails.

Without him it was the second Your patients won't have to wait a month for results. Neither will you.

> Serious side effects can occur. Select patients carefully (particularly the elderly) and follow them closely in line with the drug's precautions, warnings, contraindications and adverse reactions.

For full details please read the prescribing information. It's summarized on the back of this page.

Butazolidin' alka

If it doesn't work in a week, forget it.

Geigy

New Percutaneous Technique Effective for Biliary Relief

cutancous transhenatic biliary decompression may be the best method for and come." patients whose pending liver foilure or over-all condition makes it impossible to reconstruct the biliary tree.

Drs. Alfred E. Stockum and William Molnar, of the Department of Radiology, University Hospitals, Ohio State University, reported that they have now used the percutaneous technique in 10 patients over the past four years. In certain wellselected cases, transhepatic biliary decompression is "the only remedy to improve tha deaperste condition of the pstient," they told the American Roentgen Ray Society here.

Obstructive jaundice, if caused by stricture of the common duct, is usually from surgicel traoma, they said. "The sobsequent, multiple surgical interventions, including possible primery repair and choledochal or hepatic onastomosis to intestinal tract, all may yield to occasional restenosle causing recurrent ascending cholangitis and chronic hepa-

Butazolidin alka

importent Note: This drug is not a simple analgesio. Do not administer ossually Carefully
evaluate patiente before at arting treelment
and keep them under close supervision.
Obtaine detailed history, and complete physical and laboratory examination toomplete
hemagram, urinalysis, etc.) before preserbing and at trequent intervels thereafter.
Carefully select patiente, evolding those responsive to routine measures, contraindcated patients or those who cannot be observed trequently. Warm patients not be
exceed recommended dosage. Short-term
relief of severe symplems with the smallest
relief of severe symplems with the analiest
possible dosage is the goal of the arby. Dosage should be taken with meets or a full glass
of milk. Suballitute also capaules for labilets if
dyspelle symptoms occur. Patients should
discontinue the drug and report immediately
any sign of; laver, sore throat, oral lesione

anyeign of: lever, sore throat, oral legic

ulceration or hemorrhage, akin re

Over sixty.

a pigastrio pain, symptoms of anemis, black or barry alooks or other evidence of intestin

isceration or hemorrhage, akin reactiona, agnificant weight gain or edems. A one-week Irial period is a dequate. Discontinue in the ebence of e feverable reaponse. Restriol freatment pariods to one week in patients

Indications: Acute gouty arthritis, rheumstold arthritis, rheumstold spondylilis.

intosizors: Acute gouty arthritis, rheumatoid arthritis, rheumatoid spondylitis. Contraindications: Children 14 years or less; senils patients; history or symptoms of G. I. Iniliamms from or ulcerajion including severe, recurrent or persisteri dysperejas, history or presence of drug allerey; blood dyscraelas; renal, hepatic or cardiac dyslunction; hypertension; thyroid disease; systemid edems; alomatilis and salivary gland enlargement due to the drug; polymysigla i heumatica and temporal enteritis; patients receiving other potent chemotherapeutic egents, or long-termanificos guiant therapy.

of blood dysers sia); dyspepsie

A tough act

to follow.

MONTREAL-A new technique of per- further aggresste the clinical condition, which eventually ends in hepatic failure

Refarrad for Chalangtography

Drs. Stockum and Molnar pointed out that all 10 of their patients were originally referred to them for vieualization of the biliary etructures by percutaneous cholangiography. Five hed benign stenoeis, and five had obstruction caused by malignant tumor. After they visualized the biliary system and decided on percuteneous drainage, they inserted under local anesthesis an 18-gusge, thin-walled needle sheathed with a Tesion estheter through the ninth intercostal space nt the midaxillary line. They then directed the needle into a free, contrast-filled tributary of the right hepatic duct, and brought a curved-tip guide wire through the needle; it was then advenced into either the left duct or an adjoining right duct tributary. The needle was theo removed and, using the guide wire, the number 7 Teflon cetheter was maniputitis. Uncontrolleble pruritus, psychosis, lated into its finel position. "The catheter

Wamfings: Age, waight, dosage, duration of therapy, existence of concernition diseases, and concurrent potent chamotheropy affect incidence of textic reactions. Carefully instruct and observe the individual patient, especially the aging (forty years and over) who have increased susceptibility to the low tilly of the drug. Use lowest effective dosage Weigh initially unpredictable benefits against potential risk of severe, even latel, reactions. The dite ease condition itself is unattered.

weigh initially unpredicible benefits against potential risk of severa, even latst, reactions. The disease condition itself is unattered by the drug. Use with caution in first trimester of pregnancy end in nursing mothers. Orug may oppear in cord blood and bra est milk. Sarious, even latst, blood dyscrasies, including aplastic anemie, may occur suddenly despite regular hemograme, and may become roantlest days or weeks efter cessation of drug. Any significant change in totel white count, relative decrease in granulocytes, eppearance of immeture forms, or fell in hamstoorit should signal immediate acassación of therapy and complete hematologic investigation. Unexpisited bleeding involving CNS, edrenals, and G.I. Irach has occurred. The drug mey potentiate action of insulin, suifonytures, and suifonamide-type agents. Nontoxio and loxic gotiers end myxedema have been reported tithe drug reduces todine uptake by the thyroid.

mysedema rava been raported tine drug reduces lodine uptake by the thyroid). Biurred vision can be a significant loxic

Blurred vision can be a significant loxic eymptom worthy of a complete ophthalmological examination. Swelling of ankles or lace in patients under sixty may be prevented by reducing doses. It edens occurs in patients over sixty, discontinue drug. Presautions: The following should be secomplished at regular intervals: Careful detailed history for disease being treated and detection of sartiest signs et severes resortions; complete physical a xemination including check of patient's weight; complete weekly (especially for the signs) or an every two week blood check; pertinent le borstory studies, Caution pellents about participating in activity a cat, etc. Cases of laukemis have been reported in patients with a history of short-end jong-term therapy. The majority of livese pedients were over forty Ramember itial artiritio-type pains can be the presenting symptom of a ukemis.

Adverse Recollons: This is a potent drug; its misuse can lead to serious results. Review detailed information before beginning

in this position will provide external biliary droinage which will he cullected into a pleetic bag ottnehed to the cathcter. Direct internal drainage is established only if the tube can be guided across the stenotic, compressed, or invaded segment into the anatomosed intestinal loop or distal common duct."

In their first patient, they recalled, "the transheratic drainage tube was inserted with the latention only to improve the patient's condition before the contemplated surgical intervention three weeks later. In the rest of the putients the demonstrated coadition of the biliary system precluded further surgical intervention."

Detailing the indication for use of the perculaneous drainage technique, they cited four henign conditions in which it cunld prove of value; postoperative common duct stricture; restenosed choledochodnodenal or -jejimal anustomosis; intrahepatic biliary stones, where the procedure may allow direct irrigation through the tube utilizing heparin or bile salt solutions to dissolve the stones; and scleroeing cholangitis without renal fail-

A second group of indications include intrahepotic obstruction caused by primary or metastatic tumors and recurrent extrahepatic obstruction due to primary biliary or panereatic tumors.

liberepy. Ulcerelive esophegilis, sculn and reactivated gastric and duodonel sicer with parteration and hemorrhas 3, siceration and parferellen at largo bowel, occuli G.1 blooding with anemis, gestrille, apigaetro pain, hemetamesis, dyspepsie, nauses, vomiting and distribes, ebdominel distention, epranulocytosis, apiestic snemis, hemolytic enemis, anemie due to blood loss inotucting occuli G.1, bleeding, thrembocytopenis, pancylepenis, isukemie, leukopenie, bone marrow depression, sodium and chioride rotention, weler ratantion and edeme, plasme dilution, respiratery sixulosis, metabolic ecidosie, is isl and nonfatal hepatitis (cholestesis may or meynet be prominent), petechise, purpure without thrombocytopenis, loxis pruritus, erythema nodosum, srythama multiforme. Sievens-Johnson syndrome, Lystiis eyndrome (toxic necrotizing epidarmolysis), exiolistive dermalitis, serum sickness, hypersensilivity anglitis (polyarteritis), anephytectic shock, urticaris, anhreis ie, fever, reshes ial siargio reactions require prompt end permanent withdrawal et the drug), proteinwis, hematuris, oliguris, anurfs, renel teiture with ezotemis, glomerulonephritis, acuie

laieral renal cortical necroels, renal siones ureteral obstrucijon with uric acid cryaleis dua lo pricosuric acijon el drug. Impelrad

due lo uricosurio scilon el drug. Impelred enal funcion, cardiac decompensation, hypertension, pericardilla, diffuse interallial myocardilla with muscle necroels, perivasculer granulomate, aggravellon of lemporel arteritte in patiente with polymyalgiar theumalics, optic neuritts, biurred vision, retinel hemorrhage, toxic amblyopie, retinel debachment, hearing loss, hyperglycemie, thyroid hyperplase, toxic geller, association of hyperthyroidism and hypothyroidism (causal reliational states; feithargy; CNS tractions, escolated with overdosage, including convulsions, euphoria, psychosis, depression, headaches, hallucinations, giddiness, vartige, coms, hyperventitation, insomnia; ulosrative stomellits, sativary glendeniare.

e. coma, ryperverminence, asserince. Alive stomellis, salivary glend gement. IS388-148-070-H(10/71)

For complete details, including dozage, please see full prescribing information.

Out of 6 Criteria

Medical Telbung Report CHICARO -Stroma-free heatoglobin solheart-lung bypass.

> "Our data suggest the possible effetiveness of stroma-free hemoglobio sole ported to the Clinical Congress of the

of an ideal blood sobstitute: There are generalized or allergic reactions du ; antihody-antigen sensitivity. There a m interference with typing and cross-main ing of blood and no adverse effect or

However, the solution cannot our h retained in the blood system for an & fective period. It is excreted rapidly by

"The next step is a chemical proble," sutd Dr. Hohlefer. "Since this is o chair ent spintion—there are no cells is iit may be possible to book the hemoglefilm onto a motecule that would not be remlily exercted."

in isolated heart perfusion, the peformance of the hemoglobin solution in oxygen transport was also similar to he of whole blood.

The absence of tissue reactions at a result of species differences suggests that animal blood may be one day used when

With Blood Substitute Hektaen Institute Investigaters

Medical Research, Chicago, reported that the use of stroma-free hemogloba was accompanied by severe bleeding is experimental animals because it opporently destroyed factor VIII oad, to a lesser extent, factor V.

An unticoagulant has been identifed and can be purified and synthesized, atcording to Alan Cochin, associate diretor of the surgical research deperiment The synthetic peptide, closely related to the natural anticongulant, might be d vulue in treating nhnormal clot formation.

Medical Tribune Report eases (NIAID) reported.

The isolation of the conteminant of ganism, Pseudomonns cepecia, in brot-chial washings from 22 palients, 18 of whom had been ireated in the ENI clinic, spurred an investigation by e team

"The suicide prevention center much of a dent in the suicide rate

And that's the way it goes, these ys. (Rerular best, fumaloris Mailes, page 36).

Wednesday, November 14, 1973 **Blood Substitute** Said to Fulfill 5

tion, made from outdated human while blood, has been used successfully to maintain a puppy for one hour during

The performance of the solution on similar to that of whole blood, according to Dr. Wilfred F. Holdefer, of the D partment of Surgery, University of Ale

tion as a whole-blood substitute," he a-American College of Surgeons.

He said it fulfills live of the six crisis budy organs.

the kidneys.

large quantities are required.

Bleeding Reported in Tests

► A group from Hektoen institute for

Impure Anesthetic **Causes Infections**

BETHESUA, MD .- The use of consient lap water in the preparation of topical anesthetics for en cur, nose, and the clinic caused an outbreak of respirated truct infections ut Vanderbilt University Hospitul, Nushville, Tenn., the National Institute of Allergy and Infectious Dis-

headed by Dr. William Schaffoer.

ECTOPIC BEAT

apened in recent yeers in major cities goross the nation have feiled to make

Specialty Recertification Also Due

Mandatory Relicensure Foreseen in Decade

fnund uning our members."

surgical ability, said Dr. Welch.

"nnthing succeds like soccess," avoids

the valid criticism that a good mark on

un examination does not equata with

On the subject of relicensure, Dr.

"The state already hos difficult deci-

Welch said some measure of government

sions to make when it defines various

health professionals. Let it continue to

focus on this level and describe the differ-

ences, for axample, between a physician,

stetc," he said.

a deotist, a nurse, or e podletrist. At the

Temper tantrums...

mood...impoirment

Mellerii helps ceim the agiteted geriatric patient, it not only

and hypermotliity. Of course, neurologic deficit connot be

brain syndrome can frequently obtain meaningful

repaired, but the petient with senile psychosis due to organic

sudden changes in

of arientation

reduces agitetion but elso diminis

symptomatic relief with Melierii.

geriatric with

for the agitated

senile psychosis

thioridozine

TABLETS: 50 mg. thioridazine HCi, U.S.P.

control would be "almost inevitable."

Medical Tribune Report

CHICAGO-Within the next 10 years phyicians will be required to be relicensed to practice medicine and to be recertified to precise as specialists, the new president of the American College of Surgeons, Dr. Claude E. Welch, told that body. Patient core will continue to be avail-

able to the public at several levels in the future just as it is today," Dr. Welch aid, "but . . . the optimism care of the present time can be improved even more by yet untested mechanisms. Recertification and relicensuro furnish important methods that must be considered in de-

Reliceosure and recerlification, Dr. Welch sald, "certainly are not pleasing to the practicing surgeon, who visualizes another noose around his neck ond further depletion of his rare hours of

"It is ool e pleasant prospect for the young physician, whose ndmission to medical school essentially guaranteed graduation, often without marks or exminstions. Nor is it complimentary to the medical profession to receive this mique criticism. But there is overwhelming evideoca that this will occor. In the remacular, it is a new bull gume." He noted that it is an issue on which the American College of Physicians has taken oo official stand, and that his own remarks bore no official endursement.

But he added, "I believe it is impernive that the college immediately investigate the entire subject of recortification and relicensure; thereafter, if the college declares liself in favor of these procesures, it must plan for the tactles of ite

"Multipla Pathwaya" Urgad

As for what position the college should take, Dr. Welch said, "My recommendation would be that it approve multiple peliways to recertification, that strong support be given to outenute evaluation, and that any attempt to require examinadons as a sole method for recertification

As of now, Dr. Welels said, six state medical socicites require cylclonec of confound postgraduate education for configuation of momhorship, and 13 uthers have recommended voluntary participa-

The American Board of Medical Specialties lest March collect for the volunlary, periodic recertification of niedicol specialties. It is likely that "real teeth" will be loserted in these recommendalions wheo the words "voluntory" and "certificatioo" are reploced by "involuntary" and "licensure," Dr. Welch said.

"At the present time," he said, "recerfication cao be regarded as a merit adge-a olce decoration to wear but of no economic significance. In the future, if reliceasure is based on recertification, it could become a matter of economic life or death."

There are severel woys recertification can be accompilshed, he said. The first and easiest would be a simple re-examination by computer every five to 10 years. The penelties for the 10 to 20 per cent hat might be appected to fell would range from mild to sovere, perhaps from e warning to required stiendonce ai postgraduele courses to exclusion from prac-

lice until a further exemination is passed. It is obvious that this method could be cruel to the lodividual end catastrophic to the community in which he Practices," said Dr. Welch. "Nevertheless this melhod, because of its facility, is the most likely to be choseo."

A second method of recordification would be individual participation in a variety of educational activities, including alleodance st clinical congresses, meethas of other specialty societies, or par-licipation in other academic pursuits

A shird method would be a peer re-New systam in which a surgeon's record woold be considered as the basis of recerification: "Undoubtedly deficiencies in practice would be found," said Dr.

Welch. "Some surgeons have changed to renew their knowledge, Dr. Welch said. become general practitionars, with In- Specialists would not be required to resufficient surgical experience to maintain strict their practice to their specialty. their skills. A few may be entangled in A specialist could coatinue to function problems of ethics. In general, however, as a primary physicien, but a sorgeon it is likely that few black eheep will be would be expected to offer the highest quelity care only in his specialty. The third method, offirming that

> monities will remain, and "elective eurgery, even in the bands of relatively untrained men, will persist," he seid.

Additions to the fee would also ba

higher level, licensure of specialists should not be done unileterally by the certified, (2) be were a member of the The benefite to the public of recertifibad at least five years experience as a cetion and relicensure would includa procticing surgeon, and (4) ha could well-trained physicians who continuelly prove continuing education in surgery.

Operations Will Remain

"Emergency surgery in isoleted com-

Dr. Welch ooted that the Massachusette Chapter of the Collega of Surgeons, after considering the factors that improve tha performence of a surgeon, suggested that auch factors should add to the hasic fee for a given service. Under this system, a general practitioner would be peid the basic fee for o aurgical service.

allowed if (1) the surgeon were board-American College of Surgeons, (3) ha

'Bioptome' Perfected

Medical Investigators at Stanford University hava perfected a "bloptome" to he inserted into a potient's jugular vein and threaded into his heart to obtain a emell sample of cardiac tissue. It is used to make direct diagnosis of rejection in heart transpingts.

Belore prescribing or administering, see Sendoz literature for full product infor-mation. The following is a brief summery.

Contraindications: Severe central nervous system depression, comstose statae from any cause, hypertensive or hypotensive haert disease of sxtreme degree.

Warnings: Administer cautiouely to pallents who heve previously exhibited a hypersensilivity reaction (e.g., blood dyscrasiss, isundica) to phenothia-zines. Phenothiazines are capable of potentisting central narvous system depressents le.g., anesthelics, optetss, etcohol, etc.) as well as etropine and phosphorus insecticides. During pregnancy, administer only whan the potential banelits exceed the possible risks to mother and letus.

Precentions: There have bean intrequent reports of icukepenie and/or egienulocytosis and convulsive seizures. In epileptic patisals, entronvulsent medication should elso be meintened. Pigmentary natinopathy may be avoided by remaining within the recommended limits of dosega. Administer cautiously to peticitis perticipating in ectivities requiring complete mentel alertness (e.g., driving), and increase dosage gredusity. Orthostatic hypotension is more common in femalas then in males. Do not use apinephrine in treating drug-induced hypotension since phanotitiazines may induce a re-

versed epinephrina affect on occesion. Daily doses in axcess of 300 mg. should be used only in severe neuropsychietric conditions.

Adverse Reactions: Control Nervous System-Diowsiness, especially with large Adverce Reactions: Control Nervous System—Drowsiness, especially with large doses, early in treatmont; infrequently, pseudopsrkinsonism and other extra-pyremidal symptoms; noclurned contustion, hyperactivity, lathsrgy, psycholic resctions, restless ness, end haadsche. Autonomic Nervous System—Dryness of mouth, blurred victon, constipation, asses, vontiling, dierthea, nessi stuffiness, end patior. Endocrine System—Gelectorrhes, bresst sngorgemsni, amenorihea, inhibition of ejacustion, and peripheral edema. Skin—Dermetills and skin sruptions of the urticeriel type, photosensitivity. Cardiovescular System—ECG changes leee Condiovescular Effects below). Other—A single case described as psiotid swelling.

The following reactions have occurred with phenothiazines and should be considered: Autonomic Reactions—Miosis, obstipation, anorexia, paralytic lieus. Catenagous Reactions—Erythema, axiolistive dermatitis, contect der-

lieus. Cutaneous Reactions—Erythema, axtolistive dermatitis, contect dermetitis. Blood Dyscrasias—Agranulocytosis, leukopenis, eosinophilis, thrombocytopenie, snemie, aplastic anemis, pancytopenis. Allergic Ruections bocytopenie, snemie, aplastic anemis, pancytopenis. Allergic Reections—Fever, isryngssi edema, anglocaurolic edema, esthme. Hapatotaxicity—Isundice, biliery stasis. Cardiovascular Ellects—Chenges in Terminsi portion of elactrocerdiogrem, including prolongation of Q-T intervet, lowering and inversion of T-wave, and appearance of a wave fentatively identified es a bilid T or e ti wave heve bean observed with phenothiczinss, including Melisrii (Infordezina), these appser to be raversible and due to attered tapolerizellon, not myocerdial damage. While there is no evidance of a cardiac rightlich palwean these chenges end significant disturbence of cardiac errest neve occurrad in patients showing charecteristic electrocardiographic changes while teking the drug. While proposed, periodic alectrocardiographic changes while teking the drug. While proposed, periodic alectrocardiographic arresi. Extrapyramidal Symptoms—Akathisia, egitetion, motor rasilsasmes, arresi. Extrapyramidal Symptoms—Akathisia, egitetion, motor rasiisssness, dystonic recilions, triamus, torticollis, opisthotonus, oculogytic crises, tremer, muscular rigidity, and skinesia. Parsistent Tardiva Dyskinasie—Persislent and somatimes injeversible tendive dyskinesie, characterized by lent and somatimss inteversible tardive dyskinesie, Characterized by rhythmicel involuntary movements of the tongue, isce, mouth, or jaw la.g., profrusion of tongue, pulling of chaeks, puckering of mouth, chewing movements) and sometimes of extremities may occur on long-term tharapy or after discontinuation of therapy, the risk being greated in elderly patients on high-dose therapy, aspecially femelss; if symptoms appear, discontinus ell antipsycholic agents. Syndrome may be masked if irestmant is rainstituled, dosage le increased, or antipsychotic agent is switched. Fine vermicules movements of tongue may be an early sign, and syndrome may not davelop if medication is elopped at that time. Endocrine Disturbances — Menatrual Irregularities, elterad libido, gynecomestis, lactation, weight Menstrual irregularities, elterad libido, gynecomestis, lactation, weight gain, edeme, tsisa positive pregnency teste. Urinery Oisturbences—Retsention, incontinence. Others—Hyperpyrexis; bahaviorai elfects suggestive of a psredoxical reaction, including excilement, bizarre dresms, sggravetion of psychoses, and loxic confusional states; following long-term treatment, a peculiar skin-eye syndroms marked by progressive pigmentation of skin or conjunctive and/or accompeniate by discoleration of exposed sclare and cornea; stellate or irregular opecifica of sntcrior iens and cornea;

SANDOZ PHAGMACEUTICALS, EAST HANOVER, NEW JERSEY 07938



High Concentrations of Vitamin A

By Arnold P. Gold, M.D. Associate Clinical Peojessor of Neurology (Pediatrics) College of Physicians and Surgeons

D.R. LINUS PAULING'S STATEMENT criticizing the limitation of nonprescription sale of vitamin A tablets and capsules containing more than 10,000 laternational Units, which was sent to Dr. Charles E. Edwards, FDA commissioner, and made available to MEDICAL TRIBUNE, published on February 28, requires comment. The statement is replete with inaccuracies necessitating a response in view of Dr. Pouling's eminence as a professor of chemistry and twice recipient

American people from hypervitaminosis

I fail to understand Dr. Pauling's

statement that the regulation would be

largely ineffective and would be eco-

Dr. Psuliag's comments relotive to the

vitamin A content of certnia foods are

tion of the vitamin A content in over-

the-counter sales. The daily intake of

supplemental vitomins is commonly cm-

ployed by a significant segment of the

population, while it would be uncommon

pertinent as further indication for limita-

nomically damaging to the public.

of the Nobel Prize. The views and opinions of Dr. Pauling may in part be attributed to his theoretical chemical background rather than to the practice of clinical medicine.

The American Academy of Pediatries Committee on Drugs, in conjunction with the Committee on Nutrition, formulated a joint committee statement entitled "The Use and Abuse of Vitnmin A." This commentary noted the potential grave risks relative to unrealricted sale of high concentrations of vitnmin A and urged restrictions be placed on over-thecounter marketing of high-potency vitamin A preparations. This factual presentation contributed to the FDA proposal to restrict the over-the-counter sale of vitsmin A to tabicts and capsules containing more than 10,000 International

The recommended doily allowonce of vitamin A is: for infants and children up to the age of 12 years 1,500 to 4,500 I.U.; for odults 5,000 I.U.; and for pregnant women 6,000 I.U. There are no known advantages in exceeding these ailowances in aormsl individuals, and the limitations on over-the-counter sale to products exceeding 10,000 l.U. of vitamin A seem reasonable to protect the American people, above all children, from the toxic effects of excessive vitamin A intake. Dr. Pauling certainly presents no evidence for his recommended optimum daily intake of 25,000 I.U. of vitamin A.

Excessive INTAKE of preformed vitamin A has resulted in serious toxic side effects, especially to young children, and there is considerable documentation to support this statement. High doses of vitamin A takan for prolonged periods of time posa a risk, particularly to the pregnant woman and fetus, in pregnant animals intge doses of vitamin A can produce cantral norvous system anomalles resulting in hydrocephalus or encephaloceie in the offspring. Infants may develop o cliaical pictura of hydrocephalus, while the older child and adult with hyparvitaminosis A manifest aigns and symptoms of uniocalized intracranial pressure, which is often referred to as the pseudotnmor cerebri syndrome. Chiidren frequently present with signs and symptoms such as headaches, nausea, vomiting, lethargy, tinnitus, diplopia, papilledema with hemorrhages, and, in longstanding cases, optic atrophy and even blindness can result. There are many other nonspecific findings encountered at nll ages with excessive vitamin A Intake, including dry akin and mucous membranzs, sparsa hair, brittle nails, myalgia, spienomegaly, and hypoplastic anemia with leukopenia. For these reasons the validity of the FDA regulation is apparent and is necessary to protect the

Sri Lanka Health Data

Medical Tribuna World Service

Colomao-Government medical institutions have been supplying "unreliable and at times falsa" data on infectious diseases, the Sri Lanka department of

epidemiology charged.
As a result, said the head of the department. Dr. Reginald Peiris, a correct assessment of the country's health situation cannot be made.

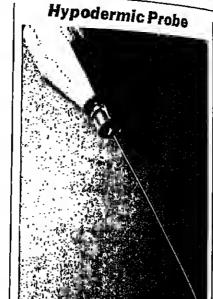
pound of onimal liver. For this reason there would be ao indication to restrict the sole of such foods.

Although anniy people may lagest potentially toxic doses of vitamin A over long periods of time without developing hypervitaminosis A, the major factor is that some people-above all, misuspecting children-may and have developed clinical hypervitaminosis A.

In ao way does the FDA regulation restrict the prescription of high doses of vitamin A when there is a medicul indication for its use, such as in nutritional deficiency states or in a state of chronic intestinul analahsorption. What the regulation does restrict is the over-the-counter sale in drugstores and supermarkets of high dosage preparations, for the ensy availability and indiscriminate usage expose both children and adults to the hazards of this potential poison.

I do believe that the practicing physicion should be nierted to the problem of hypervitaminosis A and that a review of the avoilable factuol data will aid him in critically raviewing such statements as that of Dr. Pauling's as well as clarifying the logic and intent of the FDA regula-

and rare to flad daily ingestion of half a



Investigators at Northwestern University are working to perfect "liberaptic hypothermle probes" that may eventuilly clinilunte the need for some forms of surgery. Bosed on endoscople probes, use of the hypadernic probe depends on Improved fibers and development of a small lens.

Single-Fin Goldfish Developed



Dr. Mann-Chiang Niu, Professor of Biology at Temple University in Philadelphia, and Prof. Tung Tl-chou, of the Academy of Sciences in Peking, working together on a joint atudy of cytology and genetics, have produced a single-tail goldfish (goldfish have a double tail fin) by injecting mRNA from matured ovarism corp eggs into freshly fertilized goldfish eggs.

Foreign Object in Esophagus May Trap the Diagnostician

MONTREAL-Undiagnosed foreign objects lodged in the esophagus may produce respiratory symptoms whose cause is undetected for months and sometimes years, physicians from the University of Texas Medical Broach, Galveston, reported to the American Roentgen Rny Society meeting here.

Babies and young children who swallow small objects and come to the doctor'a office with a history of poor feeding, dysphagia, and drooling are fairly com-mon and usually present ao diagnostic problems for the pediatrician, generalist, or radiologist. But when the primary complaints are respiratory rather than esophs geol, the young patiant may be treated symptomatically for asthma, allergies, croup, or poeumonias, without uncovering the object causing the trouble.

If correct diagnosis is not made early, "complications such as esophageal ulceration, esophageal perforation, chronic aspiration pneumonia, and fadure to thrive can develop," Dr. Leonard E. Swischuk, Associate Professor of Radiology and Pediatrics, told the society. "Further complicating the problem is the

fact that potentially hazardous procedures such as trocheoscopy and bronchoscopy are often performed before more simple and usually diagnostic studies, such as lateral neck roentgenograms and barium swollows are obtained."

With Drs. Pliay C. Smith and Charles J. Fagan, of the Department of Radiology, Dr. Swischuk reported on five young children with high esophngeal foreign bodies who presented predominantly respiratory symptoms. In three patients, foreign bodies had been swallowed from three to five months before correct diagnosis was made; there were no esophageol symptoms in the three. Two had pneumonia as presenting symptom; three bad stridor. Lateral neck x-ray alone established the correct diagnosis in two, Interal neck x-ray with barium swallow in a third, and chest x-ray in two. The chiidren's ages rnnged from nine months to four years.

Dysphagia may be minimal or non-existent, especially if the child is young enough to ba on a largely liquid diet. "It is remarkoble," Dr. Swischuk noted, "how rapidly and efficiently these infants can, by voluntary selection, alter their diets to accomodate the esophogeal obstruction." One nine-month-old child would drink only chocolote milk after swallowing a small plastic toy. Another very young baby with a small metallic clip in the upper esophagus and recurrent pneumonias "had so accommodated to this foreign body that if ony symptoms of dysphagia were present, they were completaly obscured.

Underscoring their contention that esophogeal bodies may not be seen unless the physican is alert to this causa of respiratory disease is the history of one four-year-old patient. She came to the hospital four months after a key choin lodged in har esophagus with fever, chills, and a chronic, productivo cough. "Review of the previous roentgenograms revealed that a foreign body was present four months earlier," Dr. Swischuk said, aciding, "The esophageal foreign body, olthough present, was not noted then."

Death Rate Linked To Unplanned Birth In Poor Countries

Medical Tribune World Service GENAVA. SWITZERLAND—Reducing infont ond child death rates in those areas of the world that operata on an agrarlan subsistence economy is an important step that leads to planned smaller families, but it is only one of several necessary steps, according to Dr. George Mettrop, consultant to the World Health Organiza-

Other important contributory steps toward family planning include better education in health and nutrition and improvement in the economic atatus of the rural world, ha sald, in a study prepared for World Population Year, 1974. During the past 20 years, he reported, worldwida research has ladicated that high birth rates and high maternal age are associated with high rates of disease and death for mothers and infants in all social classes.

A study of 2,287 familles in the stote of Uttar Pradesh in India, for example, revealed that in families with five or more births, 51 per cent of the children died, while the death rate for children in families with three or fewer births

was 38 per cent. In Egypt, another atudy indicated that "parents who lost an infant generally compensated hy having more children."

Dr. Mettrop was replying to a question frequently asked of WHO: by lowering death rates is not WHO partly responsible for world population growth? His answer, a strong negative, was that reduction in infant mortality and over-all improvement in environmental health lead couples to serious consideration of the practice of family planning.

What the Sleep Research Laboratory recorded about DALMANE "sleep...1" (flurazepam HCI)

reduced sleep latency decreased time awake after sleep onset increased total sleep time

The polygraphic techniques of the sleep research laboratory have objectively (focuriented the value of Dalmane (flurazepam FICI) for

30 ma capside of Calmane at bedt ma generally induced sloep. and provided 7 is 8 hours of sleep. Daimann effectiveness was main. Trined even over 14 consertative nights of acministration, demon.

Before prescribing Dalmane (flurazepani

Adverse Reactions: 7%

ion divarias phospinatais. Paradoscal usinte on a gos congeneral stimulation

Oosage: Indizidualize for maximum here the religion of Adults 30 mg sale.

Supplied: Capsales declaring (\$100) Storig Horazepalm HCL

What the patients reported when they awoke1

☐ more rapid sleep induction increased duration of sleep

The utility of any sleep medication depends, ultimately, on patient recoptance. For this reason, sleep laboratories evaluating Dalmane (Illurazepami FICI) have obtained the patients' own estimates of their sleep immediately on awakening in the morning. These subjective evaluations have been in strong agreement with the polygraphic records, confirming polygraphic evidence of Dalmane effectiveness

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DALMANE (flurazepam HCI) When restful sleep is indicated

One 30-mg capsule h.s.-usual adult dosage (15 mg may suffice in some patients). One 15-mg capsule h.s.-initial dosage for elderly or debilitated patients.



ROCHE LABORATORIES ROCHE Division of Hoffmann-La Roche Inc. Nutley, New Jersey 07110



Barbiturate Use As Anesthetic May Cut Stroke

Medical Tribune Report
ATLANTIC CITY, N.J.—Clinical triels of barbiturates as the anesthetic or anesthetic supplement in surgery that poses a high risk of brain infurction were advocoted here by investigetors from the University of California School of Medicine, San Francisco, and Stanford University School of Medicine,

Their studies of dogs in which cerebral ertery occlusion was experimentally produced bave demonstrated that inclusion of barbiturate in the anesthetic regimen prevented strokes, the research team told the 46th Scientific Sessions of the American Heart Association.

In the laboratory trials, the right internal carotid and middle cerebral erteries were permaneotly clipped through a temporal hurr hole in 42 dogs, divided according to anesthetic management ioto soven groups of six animals.

Four groups received halothane anesthesin, categorized as light, "awake" (the agent discontinued three minutes before vessel occlusion), deep, and deep with hypotension (egeot increased five minutes before vessel clipping to reduce menn arterial blood pressure to 55 torr).

Of the remeining three groups, ona had deep pentoharbital anesthesia, another received light halothane plus thiopental begun just hefore cerebral artery occlusion, and the third was given light halothane plus thiopental begun 15 minutes after occlusion

Protective Action Clear

Findings from daily neurologic examinations as well as from brain pathology studies performed when the animals were killed on the seventh day claarly indicatad the protectiva action of barbiturete, the iovestigators reported.

-No-seurologic abnormalities occurred in the six dogs that received deep pentobarbital anesthesia and only one of the 12 animols given thiopental before or after vessel occlusion had a neurologic deficit-a transient unilaterol weakness.

By contrast, hemiparesis occurred in five of six animals in both the light ond "eweka" helothone groups. In the deep halothano groups, all the normotensive dogs and five of the six hypotensive animala became severely hemiplegic.

Tha brain studies also revealed significant differences between the barblturete and nonbarbiturate groups in meen infarction size.

In the three harbiturate groups, menns of less than 3 per cent of the right hemisphere were infarcted. Meen infarction size for the other groups was much greater: "ewake" halothane, 9.6 per cent; light halothane, 10.8 per cent; deep halothene normotensive, 28.2 per cent; deep halothona hypotensive, 34.1 per cent.

"We believe that barhiturates protect principally by decreasing cerebral blood flow and intracranial pressure," the investigators said.

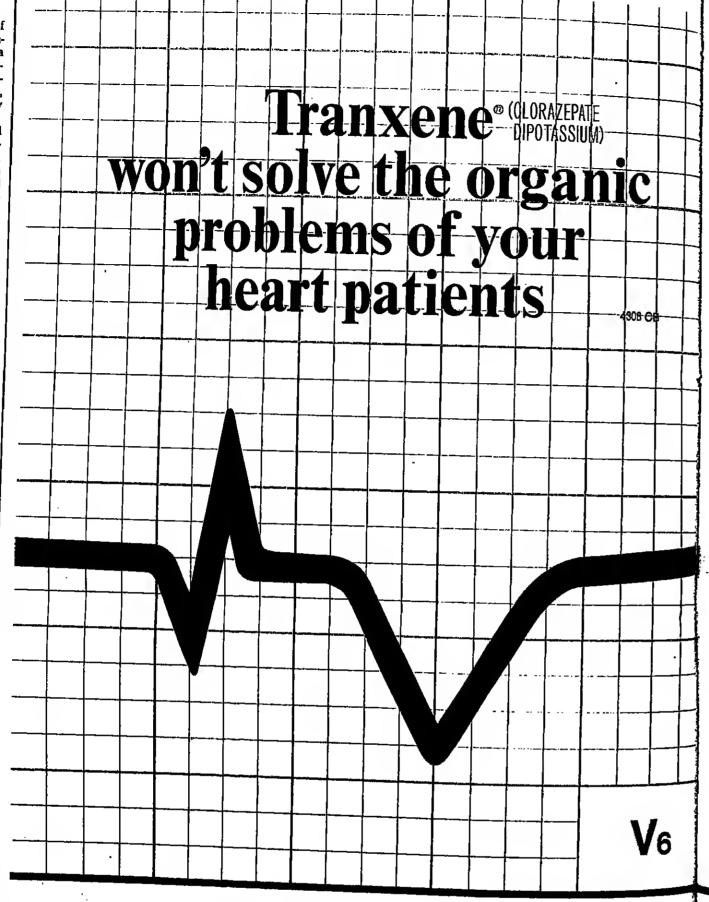
"The lowered intracranial pressure would minimize pressure in cerebral cap-illaries and venules, thus maximizing perfusion pressure in ischemic areas.

The low cerebral blood flow of berbiturate anesthesia would minimize cerebral edema, and might reduce cepillary stasis and/or capillary damage."

Noting that increasing numbers of n cerenrovascular disease ere subjected to corrective aurgical procedures, the report pointed out that the risk of brain damage is high because of the temporary or permanant occlusion of cerebrel vessels required by carotid artery thromboenderterectomy, cerebral anauryam ligation, and cerebral artery hypass.

The investigators concluded that clini cal trials of such barbiturates as thiopental are warranted for these procedures end auggested that barbiturates should perhaps be considered for treatment of soule stroke.

Members of the research team were Drs. Allan L. Smith, Julian T. Hoff, Surl L. Nielsen, and C. Philip Larson.



But it can help relieve excessive anxiety without clouding the symptom picture

Consider.

In controlled, double-blind studies, Tranxene...

- showed no adverse effect on pulse rate (no bradycardia reported)
- showed no effect on blood pressure, other than a lowering of slightly elevated systolic pressure in some patients
- produced no drug alterations in ECG in the two studies where electrocardiographic effects were investigated
- produced no serious side effects at recommended doses. The most commonly seen side effects were drowsiness, lightheadedness and gastrointestinal complaints

Tranxene contains no sodium; potassium content is minimal. Use with caution in patients who are considered to have a potential for drug abuse.



In three

dosage strengths:

3.75 mg.









Dosage and Administration: Orally, in divided doses; usually dolly dose is 30 mg. Dose should be adjusted gradually within range of 15 to 60 mg. daily. In cluerly or debilitated patients, it is advisable to initiate therapy at a daily dosc of 7.5 mg. to 15 mg.

OESCRIPTION: Chemically, TRANXENE (clorarepaia hnown hyperaensitivity to the drug, and t mula is $C_{Le}H_1$, $CIK_2H_2O_4$; the melecular weight is 408.93. The compound occurs os a line, light yellow, precically odortass powder. It is incoluble in the common organ solvents, but very solubta in water. Aqueous solutiona

ere unstable, clear, tight yellew, and alkaline. ACTIONS: Pharmacologically, TRANXENE (clorazapeta dipotassium) has the characteristics of the benzodraapines. II has deprossant effects on the central nervous lysiom. The primary metabolite, nordlazapam, reaches peak level in the blood stream at approxima hour. The plasms halt litto is about I day. The drug is metabolized in the liver and axcreled primarily in the arina. (See ANIMAL AND CLINICAL PHARMACOLDGY

IN CICATIONS: TRANXENE Is indicated for the symptomatic reliet of anxiety associated with anxioty neutomatic renet of another persons in which anxiety symp-rosis, in other psychonouroses in which anxiety symp-logs are prominent features, and as an adjunct in disease states in which anxiety is monitested. dipolassiunii) is contraindicated in patienia with a

acule narrow angle glaucoma. WARNINGS: TRANXENE is not recommended for use

in dapressiva nauroces or in psycholic reactions.
Palionis on TRANXENE should be cautiened against engaging in hazardous occupations requiring meniet neso, ouch as operating dangerous mechinery

Since TRANXENE has o central nervous system depressant ettect, patiento should be adviced against the cimultaneous uso of other CNS-deprossant drugo, and cautioned that the effects of alsohol may be in-

Because of the lack of sufficient clinical experience. TRANXENE (clerarepale dipotossium) is not recomded for use in patients less than 18 years of age. Physical and Psychological Dependence: Withdrawal symptoms (similar in choracter to those neigh with porbifireleo and ulcohol) havo occurred following oprolitreled and discount) have ecour ou long with of object disconlingance of clorateptia. Symplems of naryouonoss, insomnis, kritebilly, dierrhes, muscle achas, and memory impairment hove followed abrupt withdrawal after teng-term use et high doeage.

Couling should be observed in patients who are conaldored to heve a psychological potential for drug

dependence.

Evidence of drug dependence has been observed. In degs and rabbils which was characterized by convulsive seizures when the drug was abrupity withdrawn or the dose was reduced; the syndrame in dogs could be aboliched by administration of clorazegate. Usega in Prognancy: Reproduction aludies have been performed in rels and rabbits and there was no avidence. of herm to the animal felius. The relevance to the hum is not known. Since there is no experience in pregnent women who have received this drug, salely in preg-

nency has not been established.
It is oscumed that TRANXENE or its metabolite excreted in human milk. Therelers, this drug should

PRECAUTIONS: In those patients in which a degree el daprassion accompenies the onxiety, suicidal fend cles may be present and protective measures may be required. The least emount of drug that is teasible should be available to the petient.
Palients on TRANXENE tor prolonged periods should

have blood counts and liver function feets periodically. The usual precautions in freeling petients with imperred renal or hapetic function should also be observe in elderly or debilitated patiento, the initial dose should be email, end increments should be made gradually, in occordence with the response of the petient, to proclude starts or excessive sedstion.

AGVERSE REACTIONS: This side effect most tre quently reported were drowelness. Less common oported (in descending order of occurrence) were dizzinass, various gestre intestinal complaints, nervi nass, blurred vision, dry mouth, headethe, and merial confusion. Other side effects included insomnia, tron-

in rathes, leligue, etexie, gemio-urinary companis, irilability, diplopie, dopression and cleried

There have been reports of abnormal tiver and bidney enction lests and at decrease in francatocril. Diciarsa in systelic blood pressure has baon

DOSAGE AND ACMINISTRATION: TRANXENE (dyatepaie dipotessium) is administered orally in dyade doses. The usual delly dose is 30 mg. The dose Stage be adjusted gradually within the range of 15 to his daily in accordance with the response of the Minet Drowiness may occur at the retieted of free!

sel and with dosage increments, for aldorly or debt ad pipents it is advisable to initiale freatment at a dify four of 7.5 to 15 mg.

DRIM INTERACTIONS: IL TRANXENE (Elizazepoto itim) is to be combined with other drugs acting A the conical nervous lystem, county concideration and he tren to the pharmecology of the egents ly loyed. Antmet experience indicate, that TRANSENT Prolongs the sleeping time affai hero-bability after other elcohol increeses the intuition slicits of chioprometries, but does not exhibit mono-buse old its inhibition. Clinical studies here shown bested seletion with concurred hypothes medice-tion. The ton. The ictions of the benrodisappress may be beniefled by berblerates, naccolics, phength-olives, second-ordered by berblerates, naccolics, phength-olives. e oridese inhibitor 1 ar e lhar anti-dopre ssenis. A LEWING is nied to fiest sursely associated the working the second of the second and second and second second

MANAGEMENT OF DVEROOSAGE. As in the mandenied of overdorage with any drug, it should be bring in hind that multiple agents may have been

If vomiting has not occurred spontaneously, it should be induced. Immediate gastric lavago is also recomntondoring of the vital signs and close observation of the patient, is indicated. Hypotensian, though unlikely, arry be controlled with Lavephod' (lavailerenol) or Aramine' (nielaraminol). Catfaine and Sodium Benrosia injection, U.S.P. may be used to countered central nervous I, stem deprassant aftecis. There has been recorded a 41-year-old women who

fook 25 capautes (187.5 mg) of TRANXENE, Sevore diarrhae and complete occurred but sho mede an ANIMAL AND CLINICAL PNARMACDLDGY: Studies rais and montage have shown a substantial di ference balween does producing framqu live and lowe affects. In rais, conditioned avendance response was inhibited of an orel dose of 10 mg. kg., redshon was induced at 32 mg. kg , the LOso 1320 mg bg in monteys aggressive behavior was reduced at the eral dose of 0.25 mg/bg; sedation (alassa) was indused at 75 mg, bg; the LDso could not be determined because of the emails effect of

forge dotes, buf the LD, accords teon mg. bg. Twenty-tour dogs were given TRANXENE erally in a 22 month loverty sludy, doses up to 15 mg. kg. waro given. Orug related changes occurred in the liver: weight was recreased and cholestesis with minima hapelucokular damaga was found, but lobulor archi-

Eighteen chesus menkars ware given cret doses of TRANXERF Irom 3 to 35 mg. kg. daily for S2 weeks. All treated animals remained similar to control enimals. Although loss leccosyle count ramained within normal locals it is ded to tail in the female ammais on the

Examination of all organs revealed no elistrational attributable to TRANXENE. There was no demage to liver tunction or structure.

Reproduction Studies: Standard studies of farility, laratelegy and reproduction were conducted on rais ind rabbits. Orel doses in rats up to 150 mg., kg. and in robbits up to 15 mg. kg. produced no abnormelities in the tetuses and no impairment to tertitiny on in the letuses and no impairment to tertitity on reproductive cepecify of adult animals attributeble to the aedativa effect of high doses infarfered with cero of the young by thair mothers (one lise in Pregnancy). central nervous system. Prolonged edministration of high dosos (120 mg. deity as a single oral dose) was houl texic offects, end abrupt cessation of drug wes

not tellowed by sarious signo or symptoms. Absorption - Excretion: Atter oral administration of TRAITXENE (clerazapete dipolassiem), there is essenfielly ne circulating paront drug. Nordiazepem, its primary malabotife, quickly appears in the blood aiream with peak tevets at about I hour. The plesma hall-lila is eporoximeloly t day. In 2 volunteers given 15 mg. (50 µC) of 14C Tranxens, about 80% was re covered in the urine and locas within 18 days. Excretion was primarily in the urine with about 1% excrete

NOW SUPPLIED: TRANXENE (cloratepote dipolar sium) is supplied as capsules in three dosage alrengths: 3.75 mg. capsulas (groy with white cap) in boliles of 100 LNEC 074-3417-13) and 500 (NDC 874-3417-53). 7.5 mg. capsujes (gray with maroon cap) in botiles el. 100 (NDC 874-3418-13) and 500 (NDC 074-3418-53). t5 mg, capsules (all gray) in boffling of 100 (NOC 074-3419 (3) and 500 (NEC 074-3419-53).

Compound Found That Influences **Process of Aging**

CORONA NEL MAN, CALIF.—The immediate precursor of choline, dimethylamino-

ethanol (DMAE), a compound synthesized in minute quantitles by human heings and found in all living organisms, may relard aging process, according to Richard Hochschild, of the Microwove

Instruments Company here.

Mr. Hochschild said that DMAE acts as a stabilizer on the lysosomal membrane to prevent leakage of lysosomal anzymes into the cytoplasm or extracellulor spaces. Such leakinge has been proposed by other iovestigators as e critical

iogredient in the aging process.
In his experimental work, the California investigator administered the Pchlorophenoxyacetic acid ester of DMAE to 32 male Swiss Webster Albino mice nt the rate of 0.3 Gm./L. of drinking water. The mice were given routine care and fed on a standard commercial pellet diet. A control group of 31 mice was treated ldantically except for the ioclusion of

Mean survival time for tha cootro mice was 9.73 months after the onset of the expariment, while the aurvival time of the drug-treated animels was 12.39 months, or 27.3 per cent longer thon the controls, he reported recently in Experimental Gerontology.

In addition, there were significant differences in fluorescent pigment density; mice given DMAE ahowed considerably less pigmentation then did the controls. And "the brains of the control animals appeared darker in color under visuol axamination than did those of the drugtreated mice, whose lighter color was similar to that of young animels of the seme strain exemined on the same occesion. The drug-treated mice were also observed to have less mesentery for than did the control animaia."

In on experiment with sanile mice. Mr. Hochschild found that beginning drug treatment well past the meao expected life span of the animals resulted in a me on survival time of 56.9 days past the onset of the experiment for the controls and 85.1 days for the treated group, e

49.5 per cent increase over the controls. "It can be concluded that life spon mny be influenced pharmocologically well into old ngc," he said, suggesting further that because of its very low toxicity to mnn. DMAE is a prime candidate for further study in relation to its action as n membrane atahilizer ond its role in the human aging process.

Piperamic Acid Active Against Infections

WASHINGTON-Preliminary animal studies indicate that piperamic ecid, a pyridopyrimidine derivetive, is orally notive egainst Pseudomonas seruginoso eod has low toxicity, according to Dr. Masanao Shimizu, of the Resaerch and Development Division, Dainippon Pharmeceutical Company, Osaka, Jepan.

Tha agent is active egainst hecterio resistant to piromidic and nalidixic eclds, and additionally is stable with respect to metabolic inactivation, he told tha 13th Interscience Conference on Antimicrobial Agents and Chamotherapy.

Piperamic ecid was more effective in combating ascending kidney infections due to Escherichia coli and Kiebsielia pneumoniae in mice than either piromidic acid, nalldixic acid, cephelaxio, and ampicillin, Dr. Shimizu noted,

"No abnormalities were observed," Dr. Shimizu reported, after serial oral administration of the egent in mice of e dose of 4,000 mg./Kg. onca dnily for four weeks or in rats at a dose of 1,600 mg./Kg. once daily for two weeks.

Coinvestigatora were Drs. Yoshiyuki Takase, Shinichi Nakemura, Hiromi Katae, Akire Minami, and Katsunhisa Nekata



Hypothermia Used to Prevent Stone Heart

Toronto-Stone heart, the potentially disastrous ischemie contracture that may develop during eardine surgery, has been prevented by prophylactic use of hypothermia according to a team from the division of surgery of the Texas Heart Institute, St. Luke's Episcopal and Texas Children's Flospitals, Flouston.

The stone heart syndronic is marked hy contraction with a greatly decreased ventricular volume. "Cardine output cannot be induced even by manual cardiae massage," said Dr. Denton A. Cooley, reporting for the surgical group ut a meeting of the American College of Chest Physicians here. Dr. Cooley originally described the syndrome.

Patients with long-standing aortic valve obstruction and left ventricular hyperprophy with elevated left ventricular enddiastolic pressure and a high sortic valve gradient are those most likely to develop

Others May Be Susceptible

"In addition to aortic valvular stenosis. patients with severe coronary artery disease associated with left ventricular bypertrophy and myocardial fibrosis likewise may be predisposed to develop this condition," Dr. Cooley said.

Using modernte general hypothermia (30° C.) and topical application of cold saline (12° C.) during anoxic cordine orrest, 1,173 operations were performed in potentially high-risk palients with aortic valve disease and/or coronnry nriery occlusive disense. Because of inherent dangers, coronary perfusion was not used, Dr. Cooley said. "In this group of patients, not one instance of stone heart occurred when this technique of hypothermic eardiae arrest was fol-

However, he noted, ischemic heart contracture developed in two patients before induction of complete hypothermic cardiac arrest. In both, small doses of propranolol followed by epinephrine induced "at least temporary reversal" of the contracted state.

1972 Education Cost Of a Medical Student Was \$16,300-26,400

WASHINGTON-Educating o medical student cost between \$16,300 and \$26,400 in 1972, according to an Association of American Medical Colleges study.

These figures emerged from intensive

study of 12 selected medienl schools. The variations reflected differing educational approaches and program gools, said the A.A.M.C. Committee on the Financing of Medical Education, which prepared

Approaches to Teaching Vary

The cost-per-student estimate, the report claimed, showed a narrower range than might have been expected considering the variety of opproaches token in teaching medicine in the United States.

The sludy was parl of ao over-all project to enable national decisions to be mnde on the financing of medical educa-Dr. Charles C. Sprague, also president of io committee chalrma tho University of Texos Southwestern Medical School.

For the individual medical student, the avernge cost came to \$2,200 for tuitlon, \$600 in lab and other fees, and at least \$1,800 in living expenses.

The proportion of the annual cost pr student devoted to research and clinical activities varied more widely than for instructional costs, according to the report. Instructional; costs ranged from 35 to 59 per cent of the total cost, whereas research activities ranged from 16 to 45 per cent of the nverage cost Clinical activities varied between 10 and 21 per cent of the average cost. Half the schools in the study were public, the other half private.

series of patients, pretreatment with small - played a role in its beneficial effect." doses of propranolol coupled with hypo-

As an outgrowth of this experience, and the decrease in myocardial metabolic Dr. Cooley has now found that in a small demands due to propranolol "must have

Dr. Cooley's colleagues in the study thermia apparently prevent stone heart were Drs. Alexander Romagnoti, George and do not increase mortality from ordi- J. Renl, Jr., Don C. Wukaseli, Sami S. nary myocardial insufficiency, which may Kabbani, Phillip Allmendinger, Frank also occur during cardiac surgery. He Santiford, Grady L. Hallman, and John suggested that the beta-blocking effect. C. Norman, of the Texas Heart Institute.

Roentgenographically Occult Tumor Located by Repeated Bronchoscopy

Medical Tribune World Service

TOAONTO—Roent genographically occult tumors were found in 13 patients in 18 month by repeated bronchoscopy, Dr. David R. Sanderson, of the Department of Thoracic Diseases and Internal Medicine, Mayo Clinic, Rochester, Minn., told American College of Chest Physicians.

In each ense, Dr. Sanderson said, an evaluation process hall identified the site of the enneer earlier than would have been possible without bronchoscopy.

Seven patients underwent lobectomy, and six have returned to normal activity; one has chronic fatigue and dyspaca. Three pntients had pneumoncetomy, and

third is elderly and has other medical problems, but pulmonary function has been satisfactory.

One patient is alive a year after surgery, but with recurrent metastatic discase; one has apparently developed a second primary squamous cancer in the left upper lobe after resection of his left lower lobe; u third patient in whom resection could not be attempted has reecived radiation therapy and has sputum negative for cancer cells 11 months after

Dr. Sanderson's colleagues were R. S. Fontana, Lewis B. Woolner, Philip E. Bernatz, and W. Spencer Payne, uil of two have resumed normal activities; the the Mayo Clinic and Mayo Foundation.

Thoth is the Egyptian counterpart of the Greek god Hermes in mythical nrigins of chemical alchemy. Subsidized by kings and princes, alchemists tried to convert one material into another, always with the hope of changing base metals into gold. Since those experiments were doomed, the alchemists also devoted attention to the preparation of medicines and became the forerunners of chemists and pharmncists.

The stamp was issued in 1925 to nonor the first Geographical Congress in Cairo.

Stamp: Minkus Publications, Inc., New York

Common Preservatives Found Artificial Liver Patented To Inhibit Human Cell Growth

Wednesday, November 14, 1973

WASHINGTON-A group of the most commonly used prescryntives in beverages and canned and frozen foods hus been found to inhibit growth and course morphologic changes in tissue cultures of buman and other mammaliam cells, according to T. Sreevalsnn, Ph.D., and E. Ginsburg and D. Salomon, of the Deparlment of Microbiology, Georgetown University Schools of Medicine and Denfistry, and E. Freese, Ph.D., of the Laboploty of Molecular Biology, National Institute of Neurological Diseases and Stroke, Bethesda, Mel.

The group of chemicals, used primarily for their antimierobial effect, influde sodium propionate, sodium butyrsie, sedium hexanoate, and octanoic and decanoic acid.

The investigators pointed out that most antimicrobial food additives are linophilic acids that have not exhibited any goss human or nnimnl toxicity at the concentrations usually used in food prepamiss and prescryption.

"Since these compounds, as well as nittile, iohibit all human cells tested in

this study at least as effectively as they inhibit bacteria, the predominant consumption of fuoil containing such compounds may potentially interfere with the function of some human cells,"

They also noted that similar problems may exist with other lipophilic neid substances, such as aspirin, that are widely used, "However, our studies were done in tissue cultures," they observed, "and ilid not involve whole tissues or animals."

The effective concentration of lipophilic ucids in tissue surrounding the gut will be reduced by several mechanisms, the team of investigators suggested. "Owing to the low pH in the stomach, the weak acids can be rapidly absorbed hy ion trapping and then distributed throughout the body hy blood circulation, decreasing their local concentration. Some of the absorbed compounds can be metabolized. . . . In addition, the mucous membrane may protect the underlying cells against the direct effect of insoluble free acids."

The investigators reported their findings in the Proceedings of the National Academy of Science.

therapeutic concepts

A flexible approach that helps meet the goals of today's new

Early and more vigorous treatment of hypertension.

individual requirements.

More adequate control of blood pressure.

Antihypertensive regimens closely molded to

dirretics, and sympathetic-inhibiting agents.

The result: greater choice to the physician in

Works like no other oral

antihypertensive

Apresoline appears to act directly on

the arterioles. By relaxing arteriolar smooth

Apresoline also helps to maintain or

muscle, it decreases peripheral vascular

resistance—decreases arterial pressure.

increase renal and cerebral blood flow.

When Apresoline is added to existing

regimens, dosages of each drug are usually lower than

Now...Apresoline (hydralazine)

when used alone, thus tending to reduce risk of side effects.

constructing an appropriate regimen.

which can be combined, for added control, with

other antihypertensives—thiazide and nonthiazide

These goals can be met in part with Apresoline,



ceived the first U.S. patent for an artifielal liver. The "hepatic support device" cantains live animal liver cells. Although it has not yet been tested on human beings, it is designed for use autside body, like an artificial kidney.

X-Ray Limits Advised

网络特殊 医高性 拉拉

WARSAW-In a recommendation to the medical profession on limitation of the use of diagnostic x-rays, the head of the Polish Health Inspectorate said that chest x-rays should not be taken of teenagers or of children being admitted to nurscries, sanatoriums, kindergartens, schools, or summer camps. Roentgenography of pregnant women, infants, and children up to 10 years of age should be limited to those cases where it is considered absolutely necessary, he advised.

Audiometric Device

JERUSALEM-An audiometric device designed to produce highly reliable results without the insertion of an electrode into the auditory tract has been developed here hy investigators at Hebrew University. It is likely to be particularly valuable, they said, in work with retarded children, who often react poorly to standard tests.

The device consists of a set of earphones, through which the subject hears sounds of graduated intensity; a set of electrodes, which are ottached to the carlobe, the nose, and the vertex and which monitor the reactions of the inner car and the base of the brain to the sounds from the earphones; and a small "avernging computer," which operates on line during the examination.

The computer isolates the reaction to the auditory stimulus from outside interference or internal disturbances.

A graph describing the reactions of the auditory nerve and the four nuclei in the hase of the hrain that constitute the anditory tract is then obtained on the oscilloscope screen.

The muchine was developed by Horvey Sheldon Sohmer, Ph.D., Senior Lecturer in Physiology at the medical faculty, and Hillel Pratt, n neurohiology student.

"Mensuring nervous reactions of the car and brain to auditory stimuli assures n more objective henring test," Dr. Sohmer commented. "For example, in a regular hearing test, children react to hand clapping with eyelid movements or with fright. But retarded children do not usually react at all. For this type of child, among others, the standard tests do not provide a true picture of henring acuity."

India Surveys Nutrition

New Deatht-Nutritional studies conducted by the Indian Conneil of Medical Research show that 80,000,000 children in the one-to-six age group suffar protein ond calorie deficiencles, and at least 60 per cent of all children in this country have nutritional anemia.

During the fourth Five-Year Plan, the Indian Government introduced a special program to supplement nutritional requirements of populations living in tribal oreas and urban slums, and the program will be given additional fuods in the fifth

Under the program one meal is provided dally to children up to tha age of six, as well as to expectant and nursing mothers.

Children's Aldes to Tour

Tokyo-The Tokyo metropolitan government is sponsoriog a tour of Enrope for about 50 physicians, nurses, and others who help care for crippled chil-dren. On the 15-day trip they will inspect institutions for such children in Denmark, the Netherlands, Britain, France, and Italy.

Newborn Heart Screening

DUBLIN-Preventive measures against coronary heart disease should begin at the beginning, the Irlsh Heart Founda-tion believes. It plans to test 10,000 newborn infants for high levels of blood lipids, and those ideotified as at risk will be put on an appropriate diet from birth.

Apresoline...an antihypertensive idea (hydralazine) whose time has come











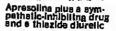












Apresoline hydrochloride TABLETS INDICATIONS
Exsentiel hypertension, alone or as an edjunct.
CONTRAINDICATIONS
Hypersensitivity, coronery artery disease; mitral valivuler rheumetic heart disease.
WARNINGS
Chronic edministration of doese over 400 mg per day may produce en artiritis-like syndrome; leading to a clinical picture alministra scute systemic lupus arythemabsus. In rare instances, inte may occur at lower doses. Most of these

reactions ere reversible upon withdrawaj of therapy, but long-term treatment with steroids may be necessary. An L. E. cell preparation le indicated in the presence of any unexplained inhibitors with caution. Usage in Pregnancy
Although there has been no edverce experience
with Apresolins in pregnancy, the drug should be
used only when, in life judgment of the
physician, it is deemed essential to the welfers
of the patient.

hypotanaion may occur, and his pressor response to spinaphrine may be reduced. Paripheral neurilis, avidenced by parasthesias, numbnese, and tingling, has been observed. Published avidence suggests an antipyridoxine effect and addition of pyridoxina to the regimen if symptoms develop. Blood dyscreales, consieting of reduction in hamogiophin and red cell count, leukopenis, agranulocytosis, and purpura, have been reported farety. If such abnormalities develop, discontinus therepy, Parledic blood counts are advised during prolonged therapy.

ADVERSE REACTIONS

Common: Headacher palpitatione; angrexist neuses; vomiting diarrhea; tachycardia; angina neuses; vomiting diarrhea; tachycardia; angina

pecinis Less lieguent. Nesal congestion:
Inships iscrimation, conjunctivitis peripheral
and inships ederna; discrimentales, numberes,
and inships ederna; discriments framora; muscle
spreach perchotic reactions characterized by
annie, sincipal peripheran, or anxiety; hypersendiscrimentales, peripherant per anxiety; hypersendiscrimentales, peripherant and, fractly, hepsidependent per atylic less; lymphasenopathy;
reactioning) blood dyscrasias, constained in
peripheral strangeon and red call count.
Doades. herapy in gradually increasing dosages; according to individual response. Start

with 10 mg 4 limes daily for the lirel 2 to 4 days, increase to 25 mg 4 limes daily for belence of tirel week. For second and subsequent weeks, increase dosage to 50 mg 4 times delly. For maintenance, edjust dosage to lowest effective

100 mg (peach, dry-coated); bottlee of

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. brief summaries of editorials or guest editorials in current medical lournals.

Public Ranks Scientists

A recaot poll indicates that "the proportion of the public expressing 'great confidence' in the people 'running science' has fallen from 56 percent in 1966 to 37 percent in 1972." But "this decline does not support the ootlon that the public is discochanted with science. . .

"This falling away from science is part of a general lessening of faith in American institutions and authorities rather than a major antiscience groundswell. Quastions were asked about 16 institutional areas, ranging from religion to the military, from the press to major U.S. companies. Appreciation for all of them, without exception, bas fallen since 1966 to below the 50 percent mark."

Science ranked behind medicine and finance on the popularity list. It topped the U.S. Supreme Court, tha Federal executive hranch, and the Congress, among others.

Detailed studies of the poll ahowed that the age group 18 to 29 (41 per cent expressing "great confidenca") had the highest opinions of scientists, while those aged 50 and over (33 par cent) gave tha lowest ratings. Collage educated persons gave higher ratings than high school graduates, who in turn gava higher marks than those with less education.

Peopla in tha Deep South with low incomes or living in rural parts of the country have less confidence in scientists than those economically hetter off and those in the more developed parts of the country. "Thot more 'libaral' Americaos might add to this main source of dlsconlect is suggested by the fact that those who intended to vota for McGovern were less favorable to acientists than thosa who intended to vota for Nixon, by a margin of 33 to 41 percent." Amitai Etzioni, Pb.D., Clyde Z. Nunn, Ph.D., editorial. (Science 181/1123, September 21, 1973.)

Organ Donation

The "tacitly accepted policy at all transplaot canters is not to accept any living unrelated kidney dooors." Physiclans on transplact teams often regard such donors "with uomitigated suspicion, There is illtle interest in the topic, and the issuo la usualiy quickly disposad of hy quoting some anecdotal experiances with 'crackpots' and other obviously emotionally disturbed individuals. No doubt there are many such persoos, but there are also many sana people who, for reasons of their own that are not crazy reasons, want to donate part of themselves to a stranger in need." One carefully executed study of potential living uorelated kidney dooors showed that "elghty percent were stable, salf-supportlog middle-class citizens, the average age was 33, and most were married and had children. All reported that they bad considered the problem for some weeks after their first call to the hospital, had discussed it with family and friends, and were aincere in their offers. Noce of them bad known the recipients or about them.

"The diffarential response of the medical profession toward genetically related donors compared with genetically unrelated living kidney donors remains puzzling. It seems to me, however, that we might be witnessing the clash of two morallties. One is the popular moral demaod to help the sick and to pity the unfortunate, the other, the moral imperative to cootinually keep striving for one's own personal growth and development, . . .

This is not just idle speculation—organ transplantation will one day become more comparable to, say, blood transfusioo, and then the problem of donation from an unrelated living person will have to be faced." Carl H. Fellner, M.D., perspective. (Ann. Intern, Med. 79:589, October, 1975:)

Combination With Carbidopa Aids Levodopa Treatment

Medical Tribune World Service

BARCELONA, SPAIN-The therapy of Parkinson's disease is considerably im- J. D. Parkes and J. E. Rees. proved by combining levodopa with carto reports from five countries to the International Congress of Neurology here. 10 the regimen. The two compounds are administered in a single tablet formulation.

investigators from Canada, England, France, Italy, and Spain presented the

Dr. C. Warren Olanow, of McGill University, said that he and Dr. Arthur M. Schwartz carried out a bliod observer study of 26 outpatients, half on levodopo in combination with carbidopa and half on levodopa with an ident placebo.

Eleven of the 13 patients receiving the combination exhibited improvement; only three in the placebo group did. 1mprovement meant less bradykinesia and better scores on speech, gait, posture, and disability.

The combination also reduced gastrointestinal sida effects.

Hospital and the Iostitute of Psychiatry, social life.

London, reported on two studies, with a total of 70 patients, conducted with Drs.

He noted that severe side effects nasobidopa, an enzyme inhibitor, according ciated with levodopo were reduced some 30 par cent by the addition of curbidopa

The combination, he said, reduced the incidence of nausen and vomiting to less tban 20 per cent, against 50 per cent when levodopa is given alone. This perndited rapid build-up of tevodopa dosuge to optimum therapeutic tevels within n few weeks, compared with the months often required when tevodopn is used

Dr. Marsden also noted that combined therapy decreoses the risk of enrdiac arrhythmias and moy be able to reduce the severity of postural hypo-

Drs. P. Rondet and L. J. R. Dumns, of the University of Paris, reported that mora than 70 per cent of patients treated with the now medication achieved "good results"—that is, they were abla to re-Dr. C. D. Marsden, of King's College sume professional activity or an active



Investigators at the University of Floridn will be removing tha front teeth of 24 baboons and replacing them with synthetic teeth in an experiment aimed at cutting dental costs for human beings. The synthetic teeth will be made from material that incorporates into tha bona by natural growth.

Another Growth Hormone Isolated From Human Blood

Wednesday, November 14, 1973

CHAPEL HILL, N.C.-A new growth-pronoting hormone has been isolated from homen blood, investigators at the Uniresity of North Carolina School of Medicine reported, calling it a marjor levelopment in the understanding of homan growth.

The new hormone, called "somatomedin," is secreted by the liver. According to Dr. Judson J. Vun Wyk, a pedipric endocrinologist, the so-called human gowih hormona (HGH) produced by the pluitary glond is misnamed because à has no direct effect on skeletal growth. but rather its major function is to trigset the release of somntaniedin from the

It is somatomedin, Dr. Van Wyk explaced, that stimulates skeletal growth and growth throughout the body. Somutomedin, much like insulin, stimulates glocose metabolism in fat tissue and the manufacture of muscle protein. Dr. Van Wyk also said somatomedin is required for the growth of tumor cells in tissue

The hormone cannot be detected in the blood of certain dwarfed children but is found at high levels in patients who have growth Inrmone-producing tumors. Somutomedin might have use as a stimulafor of growth in some dwarfs, Dr. Van Wyk said, but the possibilities go far beyond this application.

"We may be onto something here which could open doors in medicine we never before dreamed of," he said, explaining that cancer investigators have expressed sharp interest in somatomedin.

Two tons of outdated human blood was used to extract the 243 microgroms of somatomedia that now exist, far from enough for clinical tests and not enough to determine the structure of the hormone in order to synthesize it. Only one part of somatomedin is found in 10,000,000 parts of blood.

To be called a somatomedia, Dr. Von Wyk summarized, a substance must be under the control of growth hormone to some extent, it must be insulinlike in its actions, and it must stimulate cell growth in one or more tissues.



up a fully furnished house on its grounds to serve as a temporary restdence for patients and their families to help them learn to cope with a long-term handleap or disability.

Internal Bleeding May Be Arrested By Modified Clot

Medical Tribune Report

ANN ARAOR, MICH—Some cases of internal bleeding can best be arrested by plugging the vessel with a modified clot made from the patient's own blood, according to Dr. Joseph J. Bookstein, Professor of Radiology, University of Michi-

Such modified clots stop bleeding from a domaged artary without the complications caused by other types of clots or by the arterial infusion of vasocontrictors, he said.

The variation of transcatheter hemostasis he has developed consists of forming a clot, usually by applying some of the patient's blood to a small matrix of cellulose, and then forcing it through a catheter into the artery at a point abova the lesion; from there it is moved by blood flow to plug the artery.

Thrombin is usually added to the blood clot, Dr. Bookstein said: e-aminocaproic acid is sometimes added to delay lysis, and platelets are olso added some-

Unmodified blood clots have been used by other investigators, as have fat, muscie, and metallic sbot. Dr. Bookstein

"The problem with unmodified clots," be observed, "is that they often break up too fast bath in the catheter and in the

"The cellulose matrix tokes care of that problem, making the clot tough enough to survive being squeezed through the catheter and to resist the notural dissolving action of the blood."

Metallic shot, muscle, and fat clots preaent a problem, he said, because they do not conform to the shape of the catheter or the orterial lumen.

His technique also avolds problems inherent in the procedure of infusing vasoconstrictors through a catheter to the

lesion in order to stop bleeding.
"There is danger of infection at the inclaion and problems with storving tha organs because of the decreased blood flow. Some 20 per cent of internal bleeding cases don't respond to vasoconstrictors onyway."

Even in responsive coses there is a tendency for recurrent bleeding.

But, with the modified clots he uses. Dr. Brookstein sald, "tha procedure is rnpid, the bleeding stops immediately, and the catheter can be removed at

Ultimate Feasibility Of Lung Transplants **Shown in Animal Tests**

Medical Tribune Report CHICAGO—The ultimate feasibility of tronaplanting lungs is supported by a report that lungs removed from on animal and then replaced bad virtually normal structure and function.

A team of investigators from Monte-fiore Hospital-Albert Einstein College of Medicine and Harlem Hospital-Columbia THE PROPERTY LA geons reported here to the American College of Surgeons that four dogs so operated on survived two to five years. The dogs all appeared to have a normal respiratory status and a normal exercise tolerance.

"Tha importance of this work is that it documeous the fact that lung transplantatioo in itself is compatible with protracted good function of the transplant." aaid Dr. Frank J. Veitb, chief of voscular surgery at Montaflore. "It means that the process of removing a lung and cutting the nerve supply and lymphatics to that iung do not necessarily produce linjury or poor function in that lung. The work supports the ultimate feasibility of successful clioical lung transplantation if the problems associated with rejection and immunosuppression can be predictably and dependably solved."



physioliex phisoterial scapless skin cleanser phisoliex contains a colioidal dispersion of hexachlorophena 3% in a stable emulsion consisting of sentence (acdium octylphenoxyethoxyethyl ather sulfonate) 50%, petroistum 7%, lanolin cholesterols 0.7%, methylcellulose, polyethylens glycol, polyethylens glycol monosterate, lauryl myristyl diethanolamide, sodium benzoats, and water. pH (5,0 to 6,0) is adjusted with hydrochloric acid. All ingredients w/w. Actions: pHisoliex has bacteriostalic action against staphylcocci and other grampositive bacteria. Cumulalive antibacterial action develops with repeated use. Indications pHisoliex is indicated for use as a surgical scrub and a bacteriosiatic

skin sleanser. It may also be used tor washing to control an outbreak af grampositive infection in the nursery when good hospital practice has been inadequate as a total program of infection control. It should be used only as long as necestary for infection control. Contraindications philodex should not be used on burned or desuded akin. It should not be used as an occlusive dressing, wet pack, or lotion. It should not be used routinely for prophylactic lotal body bathing. It should not be used as a yaginal pack or tampon; or or any nucous membranes. ing. It should not be used as a vaginal pack or tampon, or on any miscous membranes. Pritsoffex should not be used on persons with sensitivity to any of its components. It should not be used on persons who have demonstrated primary light sensitivity to halogenated phenol derivatives.

because of the possibility of cross-sent tivity to becachierophena. because of the possibility of electricity to becachierophena.

Warniogs: Rlass thoroughly elist use, especially from sensitive areas such as the scrotum and perincum. If left in coofed with burned or denuded skin or mucous mambranes, sufficient becachierophene may be absorbed to cause toxic symptoms. Infants, especially premature infants or those with dermatoses, are particularly susceptible to becachierophene absorption. Systemic texicity may be manifested by eigns of stimulation (tritation) of the caniral nervous system, sensiting. of the caniral nervous system, sometime with convulsions.

pHispHax should be discontinued promp

PHISOSOPHEX CONTROL OF INCOME. PHISOSOPHERS OF THE STANDARD CONTROL OF THE STA

togive you confidence mits use and to prevent misuse

as a surgical scrub.

as a bacteriostatic skin cleanser againsi siaphylocucci and other grampositive organisms.

al homeas a hand cleanser for those who tend the bedridden patient or handle infants.

for washing to control outbreaks of grain positive infection in the nursery then good hospital practice has been inadequale as a lotal program of infection control. Use only as long as lecessary for infection conirol.

Rinse thoroughly after use.

Do not use

on burned or denuded skin or as an occlusive dressing, wei pack, or lotion.

Do not

as routine, prophylactic body

Do not

as a vaginal pack or lampon, or on any mucous membranes.

laidly is reversible.

In tend manber of reported cases, fatal istolications from hexachlorophene have of the cases include misuse of the cases include misuse of the cases include misuse of the cases of the cases

plisher is intended for external use only.
It wallowed, whiso Hex Is harmful especially to infants and children. phiso Hex noticing to prove the province in an anatomic cups.

In the province of the measuring cups.

In the province of the province is not be pristalen for behy formula

or other medications. Precautions: pilisolles suds that get into the cycs accidentatly during washing should be rinsed out promptly and thor-

Adverse Reactions: Dermaittis and photo-pensitivity. Sensitivity to hexachlorophens is rure; however, persons who have de-veloped photoallergy to similar compounds

In persons with highly sensitive skin, the the of plitoffer may at times produce a reaction characterized by reduces a mild acaling or dryness, especially when it is combined with such mechanical facroas as exceeding imposing or exposure to

accidental ingestion of pHisoHex in amounts from 1 to 4 oz. has caused anorexis, vomiting, abdominal cremps, diarrhes, dehydration, convulsions, hypotension and shock, and in several reported instances, fatalities. The sinmach should be avacuated by emests or lavage followed by 2 oz. of olive oil or vegetable oil and then by a saltne catharils with symptomatic and supportive treatment as indicated. See paskage insert or PDA for details.

Winthrap New York, N.Y. 10016



"Antihypertenacity"

Esidrix has it

(hydrochlorothiazide)

on exerting its antihypertensive effect. We call this gradual, sustained action "antihypertenacity." Antihypertenacity—it's what you want in the long-term management of mild hypertension. Esidrix is still unsurpassed as a basic diuretic/antihypertensive. And many patients with edema rarely need a more potent diuretic. Contraindications include anuria. Use with caution in

Its action is gradual, smooth. And it keeps

patients with impaired renal or hepatic function Consult complete

literature before prescribing.

ndications: Hypertansion and edeme

cantraints: Hypertansion and edeme.

Cantraindicatians: Anurie; hypersenetivity to this or other sullanemide-derived druge. The routins use of diurelice in an otherwise healthy pregnant women with ar without mild edeme is contreindicated end possibly hazardoue.

Wamings: Use with caution in severe renet dieses, in patients with renet diesese, thiszides may precipitate ezotemie. Cumuletiva effects at the drug may develop in petients with impeired renet function.

Thiezidee should be used with caution in patients Ith impaired hepatic function or progressive ver diesase, eince minor ellerations of fiuld no electrolyte imbalance may precipitate

Thiszides may be additive or potentiative at the action of ather antihypertaneive druge. Potential tion occurs with ganglionic or peripheral adrenagic blocking Orugs. Sensitivity reactions are more likely to occur in pelients with a history of allergy or bronchial

The possibility of exacerbatian or activation of

ayearnic input erysternations has been reported.
Usage in Pregnancy
Usage of Interioss in woman at childbearing age
requires that the potential banelits of the drug
be weighed against its possible hazarda to the
fetus. These hazards include fatal or naonatal

adult.

Nursing Mathers
Thiezioee crose the placental barrier end appear in cord blood and breast milk.

Pracautians Periodic Oeterminelion of serum electrolytes is Oetect paseible electrolyte imbalance should be performed et appropriets intervale. Observe patients for clinical signs of liuid or electrolyte imbalance (hyponatremis, hypochioremic elkalosie, and hypokalemia). Sarum end urfine electrolyte determinations are particularly important when the patient is vomiting exceedively or receiving parenteral liuide. Medication such as Oigitalis may also indusence serum electrolytee, Warning signs are dryness of mouth, hirst, weaknass, lethargy, Orowelnase, restiessness, muscle pains or cramps, muscular leligue, hypotansion, oliguris, tachycardia, and gastrolieslinal Oleturbance such ee neusea or vomiting. Hypokalemis may develop with thiszides ae with a try other potent diuratic, especielly during brisk diuresis, when severe cirrhose is present, or ACTH, interference with adequals oral interference with adequals or acting the property of t

Interference with adequate oral intake of elec-polytes will elso contribute to hypokalemia, igitalls Therepy may exaggerate metabolic frects of hypokalemia especially with raference o myocardial activity.

to myocardial activity.
Any chioride daficit is generally mild and usually does not require epecific treatment except under extraordinary circumstances (es in liver disease or renel disease). Ollutional hyponetremia may occur in edernatous pallents in hot weather appropriate therepy is water restriction rather than administration of sail, except in rere instances when the hyponetremia is ille-threatening. In actual sail depiction, appropriate replacement is the therapy of choice:

therapy.

Hyperuricemie mey occur or trenk gout mey be pracipileted in certein patiente. Insulin requiramente in disbetic patiente may be increesed, or unchenged. Latent Olebetas mey become manifeat Ouring thiezide administration. Thiszide Orugs mey increase the responsiveness to lubocurerine. The entithyperteneive effects of the drug may be enhenced in the post-sympetrial responsiveness in the companient of the drug may be enhenced in the post-sympetrial responsiveness or no repinephrine. This is

rial responeivenee to norepinephrine. This is not sufficient to preclude ellectivenees of the pressor agent for interpeutic use. If nitrogen retarition indicates onset of progressive renal impairment, consider withhololing or discontinuing of oursite therapy. This idea may decrease eerum Pal levate withhololing or discontinuing of oursite therapy. This idea may decrease eerum Pal levate withhout eigns of thyrold disturbance, Advarsa Resclians: Gastroniastinal—enorexie, gaeiric irritetion, neusee, vomiting, cramping, diarrhae, consilipation, jaundice (intrahapatic choiesiatic), pancreatitie. Central Nervous System—dizzinass, vertigo, paraethasies, haedache, par purpura, photosensitivity, resh, urticerie, necrolizing angilila, Blevans-Jahnson syndrome, and other hyparsensitivity rections. Hermatologic—laukoperia, agranulocytoels, thrombocytopania, epiestic enemia. Cerdiovesculer—orthoetalic hypotenelan may occur and may be potentieted by elcohol, barbiturates, or narcolics. Other—hyperglycamia, alycoeuria, hyperuricamia, muscie spasm, weakness, restleaeness. Whenever

adverso reeclions era moderale or savere, re-duce Casage or withoraw therepy.

Dasager inclviduelize dosage by tilrating fer-maximum therepoulic response at the lowest possible dosa.

possible dose, hypartensiani Inflet — Usuel Oose 75 mg daily. Maintenanca — After a week dosage msy ba aojusted Cownward to es lilitle se 25 mg or up-ward to ee much as 100 mg delly. Combined therepy — Whom necessary, other entityper-tensives mey be edded gradually and with cau-tion because of the potentieling effect of this Orua. Dosages of gangilonic blockers ehould be helyed.

Edems: Inilial - 25 ta 200 mg Gaily for several Cays. Maintanence - 25 to 100 mg daily or inter ntly. Refrectory patients mey require up to Supplied: Fablels, 50 mg (yellow, scored) and 25 mg (pink, scored); boiles of 100, 1000, 5000 and Accu-pak bilster units at 100.

Consult complete literature before prescribing.

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ALEXANOER STOIA Publisher

Wednesday, November 14, 1973

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Expropriation-A New Epidemic

EXPROPRIATION—without fair, prompt. Land adequate compensation -- is alien to the American ideal of the rights of the individual and due process; it is, under these terms, foreign to corlier Engfish jurisprudence and, when carried out in this manner without reference to a bona fide overriding national interest, it is incompatible with interpotional law.

Recent expressions of national soversignty have led to an epidemic of expropriations. It appears to be highly contapous. The reactions to expropriations re of course, predictable they depend on whose ox is gored.

When Arah states expropriate the holdings of American companies, there gagent vocal protest. But if the linglish Government, in effect, expropriates American and Swiss medicinal potents frough such devices as compulsory litensing and pricing, fixing of profits and research investments, the action is greetest by thunderous silence. In the United States there is similar talk at "exprequirefor through circumvention of medicinal palents either by reduction of periods of patent protection, by compolsory licensing, compulsory generics, and/or admisson of substitute drugs. Some of the proposed changes could add up not to simple creeping socialism but golloping expropriation. It is porticularly ironic that this attack on patent protection coacides with the first Soviet participation is the parallel protection afforded in the arts by international recognition of copy-

MEDICAL TRIBUNE fovors the lowest Possible cost of drugs consistent with drug quality and continuing drug innovalion. If the palent system has not served to achieve this, then the potent

premise for the patent system is the same for drugs or for devices; it is the same for copyright protection. The very least that one would expect is that intensive, probing, scholarly studies be undertaken to determine whether the patent system is obsolete before selectively dismantling It would be wise for the United States

system should be junked, not selectively

but across the board. The fundamental

and the British governments to recognize the contagious character of expropriation. 'The expropriation of British patents in the United States and American and Swiss patents in Britain can set the precedent for "mutual" expropriation of patents by European and Asiatic countries and the ultimate expropriation of the patents of both by African and fatin-American states.

After all, what's good for the goose is good for the gander.

Unhappily, what may be gond for the happy bunting of thoughtless "do-guoders" may be dangerous for, if not futal

to, those they say they serve.
The populations of nonindustrialized states are even more dependent than those of industriidized nations on tho continuing thow of new medicinals and on the assurance of adequacy of other essentials, such as nutrients, with particular emphasis on certain vitamins and amino acids. When one expropriates an oil field, the oil is still there and enntinues to flow, If the epidemie grows, the expropriation of the sources of new medicinals and the lass of new and needed therepentic agents may ultimately carry a very ensity price—the lives and health of the well and the sick of all

Polywater

ONE OF THE NYWAYS into which physical controversy. Hundreds of scientists attempted to duplicate Derjaguin's discoversy that of the physical physic was that of polywater. Four and a half years ago, B. V. Derjagnin, a Soviet kientist, reported that, under certain circomstances, when water vapor comlensed on a glass or quartz surface, ancomaluns #aler-polywater-formed. This remarkable water did not iteeze but went into a like petroleum jelly. The announcement Precipitated a storm of excitement—and

ery. It has now been conceded by Derjaguin and proved conclusively hy others that polywater does not exist but entails an interaction with a few silicon atoms pud urganie enmpounds.

Ah, for the simplicity of research in inanimate matter as compared with the slassy state at -30°F, and lelt and lnoked complexities of biochemical research except that inanimate matter, evidently, is equally recalcitrant and troublesome

Urinary Obstruction in Children

appropriate surgical procedures and con-Pediatrics; see page 21.)

CHAICAL QUOTE: "In [urethrol valve] siderably reduce the lucidence of urinary Pallents with obstructive symptoms, tract infection. The specific treoment of the outerior wrethral valve is tronswrethrol the outerior wrethral valve is tronswrethrol the outerior wrethral valve is tronswrethrol. paid to the anterior urethra on endoresection and/or julguration. (Drs. Casiresection and/or julguration.) P. King. De-Early discount of voiding cystourethrography.

Early discount for the angle of the control of th Early diagnosis should nunlimize the morbidity associated with unnecessory or inappropriate transport of the American Academy of



"Ach du himmel, Dr. Freud! You want me to give you 200 marks an hour to tell you about my sex life?"

€1973 Medical Tribuni

Editorial Riposte

I have written this letter in response to Dr. Sackler's editorial entitled "An Endangered Species-Homn Sapiens," which appeared in Medical Talbung on August 8,

Let me begin hy stating my enthusiastic agreement with the main thrust of the article. However, I feel compelled to point out what I consider to be significant misconceptions about the Z.P.G. [Zero Papalation Growth) movement.

First nf ull, 1 nm sure Dr. Sackler is aware of the nimost universal agreement ahnut what he called "demographic nonsense" innung demographera, students of population studies, population and onvironment organizations, the Census Bureau, world governments, and the United Natinns. The demographic evidence is clearcut: the world population will double in less than 30 years at the present growth

flow many people are living in this world around the year 2000 is not the issue. The question to he posed is: How nre we going to provide the food, water, energy, health services, and other needs for this rapidly growing population? Dr. Sackler so correctly pointed out our inability and unwillingness to provide equitahly for nil the world's people already. The inequities and shortages can only become more severe as the population

Dr. Sackler seems to be committed to the gopl of a decent and healthy life for all mankind. Those people in the Z.P.G. movement share this goal strongly. But what happens if the population continues to grow as it is presently? War, famine, tempted to duplicate Derjaguin's discov- and disease will maintain the population at some future level if we do not voluntarily slabilize it first, is that the kind of . lifa Dr. Sackler envisions for us?

I would never disagree with Dr. Sackler about the need to change our priorities to improve the lives of the less fortunate and to reduce our material greed. But I maintain that we must stabilize the population in order to accomplish those

> RONALO ARENSON, M.D. Harvard Medical School Boston, Mass.

Worried to Death

I am referring to your article headed "Psychodynamics in Heart Patients Being Identified" In MEDICAL TRIBUNE of September 19.

A patient of mine died in his sleep on March 5, 1970, at the age of 69. I had

observed and treated him since 1926. He was extremely obsessive-compulsive and perfectionistic, also distrustful and often more or less slightly depressed. In May, 1968, in connection with a minor business difficulty, he suffered e mild heart nttock from which he recovered quickly and uneventfully.

His unfavorable personality trends had gradually warsened since at least 1940. To his great disoppointment, a truckload of merchandise which he expected did not arrive, and he was unoblo to trace it. Although in nil probability the delay was due to adversa weather conditions, his wife was unable to convince him of this likelihood. He went to bed extremely upsel and never woke up again. He liter-plly worried himself to death.

This is n ease in which a marked long-Insting personolity disturbanca was an important contributing factor to the initial heart attack, as well as to the cardiac

Psychological and clinical testing (BP, heart rate under average conditions and under stress) may discover coronaryprono people, and psychotherapy, at leest in some of these cases, may forestall cardiac accidents.

MAX L. WEIKER, M.D. Denver, Colo.

A Nosy Doubt

It was with interest that I viewed your Illustration on the front of MEDICAL TRIBUNE, September 26, in which the patient was baving open heart surgery under acupuncture anesthesia.

However, one certainly wonders how much actual nourishment this patient obmaterial, in view of the fact that the patient has a nesogastric tube in place, appropriately taped to his nose. I would doubt seriously that this material has a chaoce to pass through the normal process of digestion.

DONALD J. SCHROEDER, M.D. Eugene, Ore.

Correction

In the MEDICAL TRIBUNB report. September 26, "Medical Schools Borely Getting By On Nixon Money, Dr. Horoid Magnuson is identified as assistant dean, University of Michigan (School of Medicine Implied). Not so. Dr. Mognuson is associote deon, University of Michigan School of Public Health, His stolements (page 5) referred only to that.

ROCHE announces new

a new type of antibacterial for a two-pronged attack against chronic urinary tract infections due to susceptible organisms

synthesis

Bactrim is highly effective in the treatment of these infections - primarily pyelonephritis, pyelitis and cystitis - when due to susceptible organisms. This efficacy is related to the unique mode of action against bacteria (see illustration), an action that, in effect, makes Bactrim a new type of antibacterial.

Bactrim interrupts the life cycle Nucleotide synthesis of susceptible bacteria

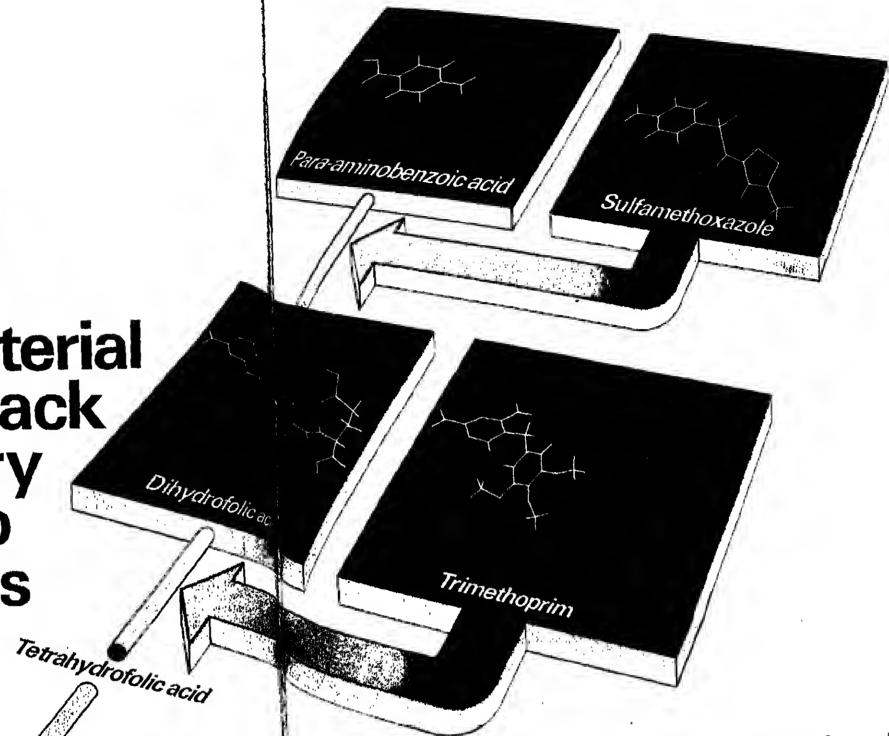
Unique mode of action interrupts the life cycle at two important points, thereby impeding the production of nucleic acids and proteins essential to these bacteria. These consecutive interruptions occur because sulfamethoxazole and trimethopnm resemble naturally existing substrates. By competitive replacement of these substrates, they inhibit further synthesis.

Prescribing considerations

Clinical Limitations: Currently, the increasing frequency of resistant organisms is a limitation of the usefulness of all antibacterial agents, especially in the treatment of chronic and recurrent urinary tract infections. Not recommended for children under twelve.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides. Pregnancy and during the nursing period.

Warnings and Precautions: Both sulfamethoxazole and trimethoprim have been reported to interfere with hematopolesis. Complete blood counts should be done frequently. If a significant reduction in the count of any formed blood element is noted, Bactrim should be discontinued. Bactrim should be given with caution to patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. Maintain adequate fluid intake. Urinalyses with careful microscopic examination and renal function tests should be performed during therapy, particularly for those patients with impaired renal function. Adverse Effects: Among the most common side effects are nausea. vomiting, rash, leukopenia and elevations in SGOT and creatinine.



Excellent clinical response in chronic urinary tract infections even with obstructive complications

Amulticlinic, double-blind study* of response to a ten-day course of therapy in 471 patients with chronic urinary tract infections demonstrated the superiority of Bactrim. On the 10th day after initiation of therapy, 91.7% (of 168 patients) showed significant

bacteriological response to Bactrim, compared with 81.2% (of 144 patients) to trimethoprim and 64.5% (of 155 patients) to sulfamethoxazole. More than half of these patients had obstructive complications.

Excellent response maintained

Bactrim proved equally impressive in maintaining this bacteriological response. In the above study, after a ten-day course of therapy with Bactrim, 68.4% of patients with chronic urinary tract infections maintained response for up to 42, consecutive days, compared with

59.7% with trimethoprim and 44.4% with sulfamethoxazole. These results are particularly noteworthy considering the number of patients with obstructive complications—cases regarded as being notoriously

difficult to treat. *Data on file, Hoffmann-La Roche Inc., Nutley, N.J. 07110 t 4 patients not available for evaluation at day

Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.

for chronic urinary tract infections

Before prescribing, please see complete product information on following page.



□ New type of antibacterial

☐ Effective against

proteus species

☐ Excellent response

in chronic urinary

pyelitis and cystitis.

due to susceptible

☐ Impressive response

urinary obstruction

primarily pyelonephritis,

tract infections,

☐ No loading dose

☐ B.I.D. dosage

10-14 days

organisms

in cases with

☐ Usual therapy:

☐ Unique dual mode of action

susceptible urinary tract

invaders: usually E. coli,

Klebsiella-Enterobacter,

frequently, indole-positive

P. mirabilis, and, less

Dascription: Bactrim is a synthetic antibacterial combination product, available in scored light-green tablets, each containing 80 mg trimethoprim and 400 mg

Trimethoprim is 2,4-diamino 5-(3,4,5-trimethoxybenzyl) pyrimidine. It is e white to light yellow, odorless, bitter compound with a molecular weight of 290,3,

Sulfamethoxazole is N'-(5-methyl-3-isoxazolyi) sulfanilemide. It is an aimost white in color, odorless, tasteless compound with a molecular weight of 253.28.

Actions: Microbiology: Sulfamethoxezole Inhibits bac-Ierial synthesis of dihydrofolic acid by competing with para-aminobenzolc acid. Trimethoprim blocks the production of tetrahydrofolic acid from dihydrofolic acid by binding to end reversibly inhibiting the required enzyme, dihydiofolate reductase. Thus, Bactrlm blocks two consecutive steps in the biosynthesis of nucleic ecids and proteins essential to many bacterie.

In vitro studias have shown that bacierial resistance davelops more slowly with Bactrim than with trimethoprim or sulfemethoxazole alone.

in vitro serial dilution tests have shown that the spectrum of antibacterial activity of Bactrim includes the common urlnary tract pathogens with the exception of Pseudomonas aeruginosa. The following organisms are usuelly susceptible: Escherichia coli, Kiebsiella-Eoterobacter, Proteus mirebilis and Indole-positive proteus

Representative Minimum Inhibitory Concentration Voluse lor Sectrim-Susceptible Organisms tMIC-mcg/ml)

8acterie	prim Sione	oxazole alone		SMX It:20) SMX
Escherichia coli	0.05-t.5	1.0 -245	0.05-0.5	0.95 9.5
Proteus spp. Indole positive Proteus	0.5 -5.0	7.35 ~300	0.05-t.5	0.95-28.5
mirabilis Klebsiella	0.5 -t.5	7.35 — 30	0.050.15	0.95- 2.85
Enterobactor	0.t5-5.0	0.735-245	0.05-1.5	0.95-28.5

Humen Pharmacology: BacIrlm is rapidly absorbed following oral administration. The blood levels of trimethoprim and sultemethoxazole are similar to those achievad when each component is given alone. Peak blood levels for the individual components occur one to four hours after oral administration. The helf-lives of Dosege and Administration: Not recommended for usa sulfemelhoxezole end frimethoprim, 10 end 16 hours in children under 12 yeers of ego, respectively, are relatively the same regardless of whether these compounds are administered as individuat components or as Bactrim. Delectable amounts of trimethoprim and sultamethoxazole are prosent in Ilie blood 24 hours etter drug administration. Free sullamethoxazole and Irimelinoprim blood levels are proporlionately doso-dependent. On repeated administration, the sleady-state railo of trimethoprim to sulfamothoxezole levels in the blood is about 1:20.

Sulfemethoxazole exists in the blood as Ireo, conjugated and protein-bound forms; trimelhoprim is present as free, prolein bound and motebolized forms. The free forms are considered to be the therapeutically ective forms. Approximetaly 44 percent of trimathoprim and 70 percent of sullamethoxazole are protein-bound in the blood. The presence of 10 mg percent sullemainoxazola in plasma decreases to mg percent sullemain-methoprim to an insignificant degree; irimethoprim does not intluence the protein binding of sulfemelhox-azole.

Excretion of Bectrim is chiaffy by the kidneys through both glomerular liliration and tubuler secretion. Urine concentrations of both auliemethoxazole end trimethoprim are considerably higher than ere the concentra-tions in the blood. When edministered together es in Bectrim, neither sulfemethoxazole nor trimethoprim affects the urinary excretion pattern of the other.

Indications: Chronic urinary tract infections (primarily pyalonephritis, pyelitia end cystitis) due to suscaptible organisms (usually E. coll. Kiebsleile-Enterobacter, Proteus mirebilis, end, less frequently, Indole-positive pro-

Important note. Currently, the increasing frequency of resistent organisms is a limitation of the usefulness of all entibacterial egents, especially in the treatment of chrooic and recurrent urinary treet infections.

Contraindications: Hypersensitivity to trime namides. Pregnency end during the nursing period (aee Reproduction Studies).

Warnings: Deaths associeted with the administration of sulfonemides heve bean reported from hyperaensitivity reactions, agranulocytosia, aplastic anemia and other blood dyscraelas. Experience with trimethoprim alone ta much more limited, but it has been reported to interfere with hametopolesis in occesional patiants. In el-derly patients concurrently receiving certain diuratics, primarily thiezides, an increased locidance of thrombo-pania with purpura has been reported.

The presence of clinical signs auch as aora throat,

fever, pallor, purpura or jaundice may be early indications of serious blood disorders. Complete blood counts should be done frequently in palients receiving Bacirim, If a significent reduction in the count of any formed lood element is noted, Bactrim should be discontinued. At the present time, there is insufficient clinical information on the use of Bactrim in Infants and children under 12 years of ago to recommend its use.

Precautions: Bactrim should be given with caution to patients with impatrnet renal or hepatic function, to those will possible fulato deticiency and to those with severe allergy or bronchial asiliana. In glucose-6-phosphate dehydrogenase-deficient individuals, hemolysis may occur. This reaction is trequently doso-releted. Adequale fluid intake must be maintained in order to preveni crystalluria and stone formation. Urinalyses with careful microscopic examination and renal function tests should be performed during thorapy, particularly for those patients with impaired renal function.

Adverse Reactions: For completeness, alt major reactions to sulforamides and to frimulingulm are included bolow, even Hough they may not have been reported

Blood dyscrasias: Agranutocylosis, aplastic anemia, megalobiastic anemia, liu ombopunia, icukopenia, hemolytic anemia, purpura, hypoprothrombioemia and melinennoglobinennia.

Allergic reactions: Erythema multitorme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, extolialive dermatitis, anaphytactold reactions, periorbital edema, conjunctival and scieral injection, photosensitization, arthralgie and allergic myocarditis.

Gastrointestical reactions: Glossitis, stomatitis, nausea, emesis, abdominal peins, hepatitis, diarrhea and

C.N.S. reactions: Headache, peripheral neurills, mental depression, convulsions, ataxia, hattucinations, tinnitus, vertigo, insomula, apaltiy, latigue, muscle weakness and nervousuess.

Miscellaneous reactions: Drug tevor, chills, and loxic nephrosis with oliguria and anulla. Periarteritis nodosa and L.E. phenomenon have occurred.

The sulfonamides bear certain chemical similarities to some golfrogens, diuretics (arctazolamide and the thiazides) and oral hypoglycomic agents. Goller producllon, diuresis and hypoglycemia have occurred rarely in patients receiving sulforamides. Cross-sensitivity may exist with these agents. Rats appear to be especially susceptible to the golfrogenic effects of sulfonamides, and long-form administration has produced thyrold melignancies to the species.

The rismal adult disage is two tablets every 12 hours for t0 lu 14 days.

For patients with renal impairment:

Creatinine Charance (mi/min)	Recommended Dosago Regimen		
Ahove 30	Usnat standard regimen		
15.30	2 tablets every 24 hours Use ant recommended		
Bolow 15			

How Supplied: Tablots, containing 80 org trimelhoprim end 400 mg sullemelhoxazolo—bottles of 100 and 500; Tel-E-Dose packages of 1000; Proscription Paks of 40, evailable singly and in trays of 10. Imprint on teblets:

Reproduction Studiae: In rats, doses of 533 mg/kg sulfemethoxazole or 200 mg/kg trimethoprim producad teretological effects manifested mainly es cieft paletes. The highest dose which did not cause clett paletes in rets was 512 mg/kg sulfamethoxezole or 192 mg/kg trimethoprim wheo administered separetely. In two studies in rets, no teratology was observed when 512 mg/kg ol sulfemethoxezole was used in combination with 128 mg/kg ol trimethoprim. However, in one eludy, cleft paletes were observed to one litter out of 9 when 355 mg/kg of sullamathoxezolo was used lo combination with 88 mg/kg of trimethoprim.

in rabbits, trimethoprim administered by intubation from days 8 to 16 of pregoancy ot doseges up to 500 mg/kg resulted in higher incidences of deed end re-sorbed latuses, particularly at 500 mg/kg. However, there were no elgollicent drug-related teratologicei ellects.

for chronic

urinary tract infections



One Man.. and Medicine

ARTHUR M. SACKLER, M.D.,

An Open Letter To Bernard Malamud On 'Rembrandt's Hat' and 'The Talking Horse'

How the memories flood in. P.S. 181 and Rose Goldstein, Erasmus Hall and Gravesend Avenue, the little delicutessen and the "hig" dreams.

What do I think of Rembrandt's Hat? Well, how should I put it? I didn't know which was more muving, the stories or the dedication:

To Ebba, Herb, Hans, George: and to the memory of Gene

That's as great praise as I can give. Of course, only you and Ebba, Herb, Hons, George, and maybe two or three others in the world would understand.

This isn't a book review. Hell, couldn't write one to save my life. I write of Rembrandt's Hat ond its eight short stories as a "life review." For me, each of the eight stories wove strand after strand into a pattern of life-from "The Silver Crown" to "The Talking Horse"; each added to it color as well as

"The Silver Crown" encapsulated sn much of what has happened-sa much that you didn't know about. It was not just Gans, the fother, dying in the hospital of cancer, and Albert Gans, the biology teecher, ambivalently abandoning his intellectual convictions to fulfill his emotional needs. It is everyhody's struggle between perceived renlity and the unconscious drives of mystic faith or wishful hope when reality becomes painful.

For me, so much of science has been so much of falth. But what does one do when science fails? Most fall back on "faith." We reject the inevitability of death. Who among us can accept the mortality of a loved one? But reality slways, ns it always must, emils illusion. You probably didn't know Sophle smoked. When the thornele surgeon snw her chest ploic, he said, "Look, fellows, you're all dactars; I'll give it to you straight. I know you don't smake; otherwiss I'd say mom has a hranchogenic ca." Forty-eight hours later he did n pneumonectomy. Cn. But who gives up? We checked all the top experts. Nothing. The world literature. Nothing, Agalu and again-nothing. We hear of o rnbbi who's a brilliant biochemist who believes he has e new anticarcinogen-on ontiblotic. He asks no silver for the Silver Crown. An hooest guy, compassionate, warm. We inject the new antibioticcrude and, leter, more refined botches. We try everything. We "fight" until she says, "Does it have to be so hard to die?" For us there was good faith and wishful hope, for loo mooy bad faith-but regardless of faith or hope or not, ell our loved ones, as we, too, will "shut our

Are We Followed?

cao tourist, the writer Howard Harvitz, like your writer Levitansky. Hervitz, the Levitansky. Harvitz was a battleground oo which fear and priociple struggled in the battle between Harviz' safety and What story did I like best? the rights and the desperate plight of his half-lew fellow writer and fellow man.

Truth can be as straoge as fiction. In to ideotify with a telking horse with Lenlingrad, while we were being escorted such a genuine Brooklyn "accent"? Nay.

VA Hospital in New Orleans.

"LRF entagonists prepared so far at

* Rembraudt's Harby Bernard Malamud Furrar, Stiatis and Giroux 19 Union Squarc West New York, N.Y., 10003.

through the Hermitage, we noted that a strenge, well-dressed young men had "nttnched" himself to one of our daughters. He claimed to be a Rumanian student on vacation end was carrying superb, complex cinematic cquipment. When we got back to the Astoria (where your Harvitz stayed), the girls told us that the young man hed given them n letter to post when we left the country, a letter to "n friend in New York," It was quickly "shredded" and down the toilet bowl. Hnrvitz had a confliet. We had none; we were an an official mission, and our young ones had to learn the rules. They had almost placed our mission in jenpardy. Leter, on several occasions, we were to ask each other-is this guy or that guy NKVD or CIA?

Fnte plays funny tricks. You were ulways going to he n writer, I n doctor. Writing was brenth to you; psychiatric research was medicine for me, I watch your climb toward the peak of your Olympus, 1 go from psychlatry into hiology, and you as a writer practico

"The Lettor" Rocked Mo

Your next story, "The Letter," really rocked me, Bernie. Was your Teddy one of my ald putients? If my contact with reality were less secure, I'd say we were together when I worked at Creedmoor State Hosptial. Elght pages of sheer, clinical facts; the reality of those who suffer "delusions"-or are they roally delusings? And in "My Son the Murderer," again the gap between the different reolities-in that case of the gonerations and the social dissociation so common to postedolescence.

In "Retirement" you immerse us into the geriatric disease of lonesomenessthe rejection of age, the clinging to youth, ond, once agaia, the illusion, the hope, the faith which is "respectfully yours, Simon Morris, M.D."

Then, in "Rembrendt's Hat," as Rubin, the ortist, struggles with Arkin, the "hypertensive, impulsive" art historism, we witness a wordless battle, a classic of one aspect of modern psychology and psychotherapy—nonverbal communication. But whether it was Rembrandt's or someone else's hat, will man always have Io "Man in the Drawer," your Amerito wear the crown of failure and hope?

What should I sey of "Notes From a got to Klev, Leoingrad, and Moscow. On Lady at a Dionet Party"? If life plays our trip to the U.S.S.R. we made Lenin- tricks on the old ones and youth tantagrad and Moscow but not Kley. We had lizes others and herself, one has to adapt the same feeling, always the feeling, are from what one learns from practice to we followed? We met brilliant doctors life-let's have patience with our paand scientists, statisticians, and human-tlents. I say "our patients." The clinical ists. Most of those we met spoke excel- acuity, the insights into the conflicts of lent Eoglish, colloquial American, not the emotional games people play, and the visual veracity of your characters' physi-American author, really had it rough. cal status atl make for classic case his-His wrestling with himself was tougher tories. These stories are musts for medithan with his Russiao fellow writer cal students, who must learn to observe the telltale signs and symptoms so critical

"Talking Horse," of course. How could one born and bred in Brooklyn fail

An International Red Cross Official (left) occepted blood plaamo from Israell Army officers for a special strifft to the Egyptian III Corps trapped on the eastern bank of the Suez Canol before Egypt wes allowed to send in food and medicioe under United Nations supervision

Blood for Trapped Egyptian Troops

How can one fail to love your Abramowitz, the talking horse, more than humon in his feelings end frustrations? Is he Abremowitz, a horse, or a horse including Abramowitz?l Locked in an indissoluble partnership with his deef-mute owner ond master, Abremowitz, the telking horse, can only heve his "theories, glimmers, guesses, but can't prove a thing." How many of us con? His master, Goldberg, doesn't seem interested in womeo "but sees to it that Abramowitz gets his chonce at a mare in heot, if available. Abramowitz engages to satisfy his physicol nature, a fact is a fact, otherwise it's no ble deal; the mare has no interest in a talking conriship. Furthermore, Goldberg applauds when Abramowitz mounts her, which is humillating."

True, Bemle, in our "circus" many seek escape in olcohol or in silence, like Abromowitz' master, they are rondered dcef oud muto and unfeeling by life, A few are like the talking horso Ahmmowitz, and try to orticuloto their yearning

for freedom in ection. Most, unlike the talking horse, ere pessive "cesseroles" lneubating a goulash of dreams, hopes, and frustretions-casseroles in "humen" ehapas. Since, unlike the talking horse, most ere unwilling to act, most ere not fated for freedom. But perhaps you're right, Bernle—what cen one expect? In youth, and less often later, those who were talking horses try and try again. But who listeos? Gene would have enjoyed every poge

I know Ebba and the others did, and I



The halls of fame are open wide And they are always full; Some go in by the door called "push," And some by the door called "pull."

Salk Team Prepares to Test Monthly Antifertility Drug

SAN DIEGO, CALIF.—Scientists from the Salk Institute and the University of Callfornio here ore preparing for clinical riols of a once-n-month antifertility drug.

The trials, scheduled for "sometime within the next five months," will test agents that block the production of speclfic reproduction hormones, sald Dr. Roger Guillemia of the institute. Clinicol tests will be conducted by Dr. Samuel Yen, of U.C.S.D. Medical School's Department of Obstetrics and Gyaecology, inder contract to Salk.

In animal studies, the ontifertility ageots antogonize the aormal action of telnizing bormone-releasing factors (LRF), which triggers the release of uteinizing hormone (LH) by the pltu-

The testing program will be conducted national Development.

The Salk Investigators believe that it should be possible to administer the LRF antagoalsts effectively within the first 10 deys of the menstrual cycle.

Dr. Gulllemin and his group first determined that man-made analogues of LRF would inhibit secretion of LH in cultures of rat pitultary cells about 18 mooths ago. Since theo, they have observed the same phenomenom in labora-

tory rats. The materials of Interest are peptides, consisting of a chain of oine amino acids, in a structure of LRP that was first proposed by a group of investigators at the VA Hospital in New Orleans.

Selk Institute are probably not yet potont enough to be considered the ultimote choice," said Dr. Gulllemin. "However, the nntngonists we are making now are more potent thau those we made six months ago, and the entagoniete we made six months ego were more potent than

those we made a year ego.' On the hasls of extensive physical end blochemical studies, it is now well recognized that peptides such as LRF ere very specific in their action, especially whaa compared with the "ublquitously acting" steroids now used as contraceptives, Dr. Guillemin said, noting that their "ublquitous neture" is the source of their frequently observed side effects.

Spaaking of their possible use as antifertility ageots in men, Dr. Guillemin

"The aama type of moleculo would aspect of their possible use is much less firmly established on experimental grounds. In fact, physiologic studies of the male reproductive system are much less well understood then those of the

While the antagonists look promising os antifertility agents, the group at Salk is equally interested in developing compounda that would trigger ovulation "in what would be, in the framework of fertility control, an improved rhythm

In addition to Dr. Guillemin, members of the Salk Institute group include Max Amosa, Richerd Blackwell, Roger Burgus, Geoffrey Grant, Michael Monaheo, Jean Rivier, and Wylie Vale



If such direct clotting occurs, "the

presence of commarin or hepurin medi-

"I helieve most physicians do not re-

Dr. Laki put rabbits on a high choles-

terol diet for several weeks and then,

after sacrifice, studied portions of nortas

that were heavily affected with sclerotic

plaques. These portions contained an av-

minase as healthy specimens of norta.

than 10 per cent of the diseased portion

of the tissue, which means that some

tissue elements of the arterial wall had

Dr. Laki says he believes that it is in

the smooth-muscle lnyer of the arterial

wall that a mutation of some tissue ele-

ments causes the arterial wall to revert

to a more oncient form—that of the lob-

ster-and produce increased amounts of

high levels of transglutaminase.

The octuol plaques comprised no more

erage of three times as much transgluta-

alize the possibility of this danger."

Atherosclerosis May Be Evolutionary Lapse

Continued from page 1

"I view the selerotic process as a result of a mutation of some tissue clements of the arterial wall whereby it reverts to a more ancient form and produces increased ontounts of transgluta-

Dr. Loki explains that in studies of the action of the enzyme thrombin on fibrinogen he has discovered that the resulting clot is not the type of clot formed in normal blood; the thrombinformed clot is soluble in concentrated ureo solution, while the normal blood clot is not.

"We now know that, In addition to thrombin, there is a second enzyme involved in the formation of the normal

"In the clot formed by thrombin, the fibrin molecules are connected by weak hydrogen bonds. Gently warming is enough to disperse the clot. In the normal clot the second enzyme is also acting, and the fibrin molecules become connected by firm chemical bonds. Such a clot can be dissolved only hy digesting It with a powerful proteolytic enzyme

Dr. Loki concludes that the enzyme that produces the clot needed for hemo-

absence," he says, adding that transglutaminnse "can elot fibrinogen directly even if the thrombin system is switched off with commarin or inhibited with hepa-

stasis ond wound healing is this second enzyme, which is a transglutaminase. The clot formed by thrombin is seen os a preliminary step.

Transglutaminase occurs in the blood of men and other vertebrates as a preentrsor, Dr. Laki says.

Has No Thrombin System

Getting back to the lobster, he explains that this animal has no thrombin system. In the lobster, fibrinogen is clotted directly by a powerful transglutaminase released from lissues.

Human fibrinogen also can be clotted directly by high concentrations of trans-

"In other words, increosed omounts of

transglutnminase, with resulting atheroselerosis. "The reason for my belief is that a this enzyme can be as dangerous as its

tissue element otherwise low in transglutaminuse content is the most likely one to have mutated to be a rich source of transglutaminase, and muscle tissue, general, is low in transglutaminase.

Result of Ganatic Mutation

patient may tlie from thrombus forma-"In this view, atherosclerosis is the result of a genetic mutation, either brought tion (fibrinogen clot) in spite of the illiont spontaneously or by some outside effects—like feeding a high-cholesterol diet to rubbits."

Dr. Luki suggests that freshly formed clots blucking diseased vessels be tested to see if the addition of thrombin to the homogenized thrombus releases fibringpeptides and if the dipeptide, y-glutamyllysine, can be isolated.

If such a study were to confirm his proposals, Dr. Laki helieves, the next step would be to find specific inhibitors of the transglutaminuse system.

Is NIH's Control Over Research Being Removed?

Continued from page I versity of Michigan ot Ann Arbor; Philip Handler, Ph.D., president of the N.A.S.; Dr. Robert Q. Marston, former head of the National Institutes of Health, fired by the Nixon Administration; and Dr. Jesse Steinfeld, former U.S. Surgeon General: and Dr. Rohert W. Berliner, former scientific director of the N1H, now dean of the Yale University School of Medi-

MEDICAL THINUNE is withholding identlificution of the other participants, some of whom ore "household" names in the medical and biomedical research communities.

Former HEW Secretary Cohen told MEDICAL TRIBUNE of "the shattering impact" of the Administration's attempt tu gain control of the research structure ut the National Institutes of Health.

Ho charged that the White House "now calls the signals in himmedical re-

May Harm Rosaarch Satup

Some of those of the oceting expressed feurs that the Administrationvia the White House's Office of Management and Budget and the Secretary of Henlth, Education, and Welfare, Caspar Weinberger-is doing serious harm to the country's research structure.

A top HEW official, however, deseribed the White House's position as a belief that "research is an open hole; It can absorb ull the money you can throw into it. We've got to get some control over It. There is a limit to how much we are willing to spend."

The alleged policy of research sincture contoinment, Mr. Cohen stated, has caused "a stote of anxiety, frustration. and enneern at NIH," a feeling that there is not enough relionce on the scientific and professional skills of NIH's researchers, with outside forces now making rescarch policy.

"Fundamentally, this is o very upsetting thing," Mr. Cohen added, warning that the administration's new approach "is very unwise."

The abolition of the NIH's scientific advisory committees, the leveling off of basic research funds in favor of expanding cancer research and contract research, the firing of NIH officials, and the Bureau of the Budget's review of research policies-"coming all at the snme tima"-have spread alarm and dismay in the research community, he said. "There has never been a situation like this before. Do these political people understand blomedical research? Don't they realize that contract research won't get the job done quicker?" Mr. Cohen asked.

He contended that "you've got to give [the NIH research atructure] a lot of leeway" and questioned the Administration's entire attituda toward research.

Dali Winners, 5th List

Wednesday, November 14, 1973

1. ANDREWS, JAMES C., M.D., 801 East High Street, Charlottesville, Va. 2. APPLE, OEORGE W., JR., M.D., Box 158, Plano, Tex. 3, AUSBON, W. W., M.D., 447 5th Avenue South, Naples, Fla. 4. BENZ, CHARLES C., M.D., 1322 N. Vermont Avenue, Los Angeles. Colif. 5, BERLANGA, RAFAEL, M.D., 111 7th Street, Garden City, N.Y. 6 BLAKEY, LESLIE W., M.D., 1221 S. Ilruadway, Lexington, Kv. 7, BOESKY, DALE, M.D., P.C., 2401 W. Hig Benver Rnad, Trov. Mich. 8, BRENDZE, ROBERT II., M.D., Zero Emersun Place, Boston, Mass. 9. BROWNING, C. M., D.O., 225 S. Main, Memphis, Mo. 10. BRYANT, FRANK L., M.D., 4421 Creswell, Shreveporl, La. II. CAMARDA, ANTHONY 1..., M.D., 690 Clintun Avenue, Bridgeport, Conn. 12. CHANDLER, WILLIAM M., M.D., 6728 Point Drive, Edina, Miun. 13. CHRISTIAN, JOHN D., M.D., 552D W. Murkham, Little Rock, Ark. 14. COLE, LARRY W., M.D., 228 N. Cascade, Suite 201, Colorado Springs, Colo. 15. COMMINOS, PETER, M.D., 915 19th Street, N.W., Washington, D.C. 16 COODLEY, ALFRED, M.D., 10921 Wilshire Houlevard, Los Angeles, Calif. 17. COZEN, HAROLD, M.D., 2326 Redundo Heach Boulevard, Gardena, Calif. 18 CROWELL, THEODORE, M.D., 2223 E. Day Island Blvd., Tacoma, Wash. 19, DAVIS, PAUL H., M.D., 636 Beacon Street, Boston, Mass. 20. DEAN, GILBERT O., M.D., 220 Ridgeway, Little Rock, Ark. 21. DEMAREST, AUDREY P., M.D., 110 Clarke Street, Syracuse, N.Y. 22. DERMOTT, ROBERT V., M.D., 141 Comino Alto, Mill Valley, Calif. 23. DONOVAN, JAMES M., M.D., 1325 S. 72 St., Omaha, Neb. 24. DUNCAN, FURM M., JR., M.D., 2318 E. Kessler, Longview, Wash. 25. EDELSTEIN, JOSEPH B., M.D., 358 Park Avenue West, Mansfield, Ohio 26. ENGLISH, R. E., D.O., 5509 Central Avenue, N.W., Albuquerque, N. Mex. 27. FOSTER, JULIAN L., M.D., 3500 South University, Little Rock, Ark. 18. DE FREITAS, GABRIEL F., M.D., 909 East Brill Street, Phoenix, Ariz. 29, GANO, LAWRENCE B., M.D., 1016 6 Avenue, Huntington, W. Va. 30. GARLICHS, RICHARD W., M.D., 216 N. Monoa Road, Havertown, Pa. 31. GENENDER, STEPHEN E., M.D., 10001 Venice Blvd., Los Angetes, Calif. 32. GEORGE, RICHARD L., M.D., 902 Second Avenue North, Columbus, Mis 33. GOLDSTEIN, SIDNEY, M.D., 1043 Pinenut Court, Sunnyvale, Calif. 34. GOLPER, MARVIN N., M.D., 411 Morningside Drive, Kokomo, Ind. 35. GOODWIN, G. V., M.D., 12 State Street, Montpelier, Vt. 36. GRAD, ED., JR., M.D., 5541 Fox Road, Cincinnati, Ohio 37. GRANDT, EDWARD J., M.D., 600 Ivy Street, Elmirn, N.Y. 38. GREENLEE, ROITERT L., M.D., 227 E. Washington Itlvd., Fort Wayne, Ind. 39. GREENWOOD, C. W., M.D., 2030 Doctors Park Drive, Columbus, Ind. 40. HABER, MORDECON, M.D., 2071) Main Street, Fort Myers, Fin. 41. HAGLER, SUMNER, M.D., Golf Mill Prof. Bldg., Niles, Ill. 42. HALLABA, M. A. S., M.D., Medical Arts Illdg., Jonlin, Mn. 43. HANDANOS, VASSILIOS, M.D., 13 Royal Avenue, Rumford, Me. 44. HARRIS, JOSEPH H., M.D., 2417 Capital Avenue, Sacramento, Calif. 45. HESTER, JOE. M.D., 419 Comberland Drive, Muskogee, Okla. 46 HILBERT, JOHN F., M.D., 409 West Main Street, Dothan, Alu. 47. HIRSHLEIFER, IRVING, M.D., 1080 N. Indian Avc., Palm Springs, Calif. 48. HORTING, HUGH R., M.D., 4400 Lindell Honleyard, St. Louis, Mo. 49. JACOBSEN, L. W., M.D., 122 W. Cotorado #207, Dallos, Tex. 50. JEWELL, PATRICK F., M.D., 823 Three Mile Dr., Grosso Puinte Pk., 51. JONES, PAUL G., JR., 56 Ardsley Avenue N.E., Concord, N.C. 52. JOSEPH, DONALD J., M.D., Univ. of Missouri Mcd. Ctr., Culumbin, Mu. 53, KASHA, ROHERT L., M.D., PA, 14-12 North Oliver, Wichita, Knns. 54. KLEIN, JOSEPH, M.D., 85 Jefferson Street, Hartford, Conn. 55, RLINGER, MORRIS, M.D., 833 Milan Street, New Orleans, La. 56, KRESH, HERHERT, M.D., 9105 Diceman Drive, Dallus, Tex. 57. LEITMAN, II. R., M.D., 188 Sahattus Street, Lewiston, Me. 58. LITCHMAN, HENRY, M.D., 39 Harwich Road, Providence, R.I. 59. LITTER, LEO, M.D., 21 Woodland Street, Hartford, Conn. 69. MADURA, JAMES A., M.D., 1100 W. Michigan Street, Indianapolis, Ind. 61, MALLER, DRADOLPH M., M.D., 850 Irving Park Road, Chicago, Ill. 62. MCCLENAHAN, M. LEE, M.D., 121 E. Marion, Sigonraey, Inwu 63. MCDOWELL, BERT, M.D., flox 1270, Scottsdale, Ariz. 64. MCENANEY, JAMES E., M.D., 376 18th Street S.W., Owatonna, Minn. 65, MEDINA, ANIBAL, M.D., 1st Nutional Towers, Hays, Kans. 66. MILLER, W. C., M.D., 808 3rd Avenue, Wausau, Wis. 67. MONTO, GEORGE L., M.D., 7008 Bellrose N.E., Albuquerque, N. Mex. 68. NELSON, THOMAS, M.D., 501 E. Buffalo Avenue, Tampo, Flo. 69. NITKA, CHARLES B., M.D., 2217 E. Platte Avenue, Colo. Springs, Colo. 70. PACIK, PETER T., M.D., 11 Shirley Park, Goffstown, N.H. 71, PETRY, JOHN A., M.D., 610711 Bardstown Road, Fern Creek, Ky. 72. PHELPS, DALE G., M.D., 1543 E. Donald, Waterloo, Iowa 73. PIEPER, SAM, JR., M.D., P.O. Box 484, Oak Ridge, Tenn.
74. REED, ROBERT M., M.D., 314 Medical Arts Bldg., Nashville, Tenn. 75. REYNOLDS, HUGH, M.D., 3213 Dauphin Street, Mobile, Ala. 76. RIVES, HUOH P., M.D., P.O. Box 870, Jacksonville, Tex. 77. ROBERT, A., M.D., 259 W. 4th Street, New York, N.Y. 78. ROCKWOOD, P. H., M.D., 615 S. Mill Street, Fergus Falls, Minn. 79. RYO, U. YUN, M.D., 2929 S. Ellis Avenuc, Chicago, Ill. 80. SAGER, JOHN H., M.D., 2141 K. Street N.W., Washington, D.C. 81, SARNI, ROBERT P., M.D., 1200 Reservoir Avenue, Cranston, R.I. 82. SCAAB, ERIC, M.D., 13t E. Tillman Road, Ft. Wayne, Ind. 83. SCHMIDT, ROBERT B., M.D., 5310 Kingsway West, Cincinnati, Chio 84. SHUBIN, HARRY, M.D.P.C., 1829 Pine Street, Philadelphia, Pa. 85. SIGDA 85. SIGDA, FRED J., M.D., Clinic Drive, Madisonville, Ky.
86, SKRIVANEK, D. A., M.D., 903 W. Lampasas Street, Ennis, Tax. 87, SMIDT, JAMES A., M.D., 322 West McDowell Road, Phoenix, Ariz. 88, SOUCHERAY, JOHN, M.D., 322 West McDowell Road, Friedling, St. Paul, Minn. 19, STAUFFER, MARY R., M.D., 11411 Brookshire Avenuc, Downey, Calif. 90. STEWART, WILLIAM W., M.D., 2600 Gordon Road S.W., Atlanta, Ocorgia 91. TEYAN, FREDERICK, M.D., 61 Hempstead Avenue, Rockville Centre, N.Y. 92. TIPTON, H. B., M.D., 745 Buene Vista, Lander, Wyo. 93. TOLAND, CHARLES W., M.D., 1234 Commercial, S.E., Salem, Ore. M. TURNER, RALPH J., M.D., 338 Bonhill Road, Los Angeles, Calif. 38. VILLAMENA, DIODATO, SR., M.D., 159 E. 80th Street, New York, N.Y. WAGONER, B. D., M.D., R.R. 2, Union City, Ind. WATSON, WALTER B., M.D., 1303 E. 3rd Street, Casper, Wyo.

WIGSER, MARCUS, M.D., 506 Oak Street, Cincinnati, Ohlo

IN, ZABLOUDIL, WARREN C., M.D., Haskell Road, Burlington, Iowa

99. WOODRUFF, ROBT C., M.D., 400 Newpt. Ctr. #608, Newport Beach, Cal.

'Keiro' Means Home for Elderly



The word "keiro" mesus "nursing home for the respected ciders," msking it an oppropriate name for a nursing facility in Loa Angeles that was constructed with funds danated by the Japanese-American community and molded to Orientol tastes.

Anterior Urethral Valve Seen In Some Obstruction Cases

CHICAGO—Boys with signs and symptoms of urethal urinary obstruction should be carefully evaluated for anterior urethral valves, the American Academy of Pediatrics was told here. The diagnostic workup should include volding filma during cystourethrography, careful urethroscopy, and examination of the onterior urethra -particularly when there are obstructive symptoms.

Although posterior urethral valves have been recognized as a relatively common couse of sovere bladder outlet obstruction, anterior urethral valves have recoived much less attention "ond even tudny are not olwnys included in the differential diagnosis of boys with symploms suggesting bladdor outlet obstruction," stated Drs. Cosimir F. Firlit and Lowell R. King, of the Department of Urology, Northwestern University, and the Division of Urology, the Children's Memorial Hospitol, here.

Did You Say Dali? Here's a Story To Go With Print

Last week the genius and unpredictable biogrophy, The Secret Life of Salvador Dall, was discussed by Dr. Arthur M. Sackler, international publisher of Medi-CAL TRIBUNE, in his column. Another revealing story comes from John Oruen, whose book The Party's Over is an art as he describes It, "Dali welked up to ma and asked if I had a temporory diversion. copy of his Secret Life of Salvador Dall. I quickly fetched the book and aald, Here you are, Mr. Dall.

"He asked whether I had read it, and had to admit that I hadn't. He then said that he would take tha book, and would I gift-wrap it. I did so with alacrity and banded him the package.

"He now banded the book back to me aoying, Take It. It is my gift to you. Would you like ma to autograph it for you? I tore open the gift wrapping, found him a pen, and, in the largest possible letters, be screwled his name—and mine-upon the frontlapiece, Mr. Dall omitted one vital atep in the transaction. He walked out of the shop without paying for the book. Needless to say, the book still rests upon my bookshelf-Brentano's gift to me."

The Chicago urologists warned that the onterior urethral volve may easily be overlooked of initial evaluation. To avoid missing the defect, n lateral or oblique view of the entira urethra must be obtained during voiding cystourethrography. "Similarly, the naterior urethra must bo carefully exomined at the time of cysloscopy.

Although review of the literoture revealed only 14 reported cases, an additional seven boys were found omong the 74 urethral valve patients diagnosed and treoted at Children'a Memoriol Hospital from 1952 to 1971. The remnining 67 had posterior urethrol valves.

Most patienta presented for urologic evoluntion because of Impeded urethrol urinary flow, olthough one was brought for exnminotion because of urinary troct Infection. Ages of the potients ranged from two days to 11 years. "Two patienta less than one week of oge who were found to have anterior urathral valves have been acen within the last 18 months.

. . . Of the seven boya with naterior urothrol valvea, two presented with large nrethrol divorticula, which, of course, suggested the proper diagnosis."

Drs. Firlit and King contioned that

"several of the pntients underwent repeoted bospitalizations because of symptoms suggesting intravesical obstruction before the proper dlagnosia was made." Early diagnosis, they continued, should minimize the morbidity associoted with charocter of Dali as revealed to his auto- unnecessary or inoppropriote surgery and reduce the incidence of urinary tract in-

Specifically, they recommend transurethral resection and/or fulguration for anterior urethrol valve. When the condition is associated with a divarticulum, biatory of the 1950s. Mr. Oruen was they perform open resection of the valve working as a clerk in Brentano's book- together with excision of the diverticulum, with suprapuble cystostomy for

PAHO Reports Smallpox Eradicated in Americas

Washington-The Pan American Health Organization reports that smallpox has been eradicated from tha Americas. The last case of the disease was reported on April 19, 1971, in Brazil.

Efforts to cradicate amalinox in the Amaricas started in May, 1949, when member governmenta odopted a resolution urging massive vaccination.

Between 1948 and 1971, In American countries in which the disease was endemic, 208,575 cases are known to have occurred.



When G.I. complaints occur in the absence of organic findings, underlying anxiety may be one factor

The influence of anxiety on gastrointestinal function

Excessive anxiety and tension can adversely affect the function of any portion of the gastrointestinal system. Complaints are varied, e.g., epigastric pressure, heartburn, ulcer-like pain, diarrhea, etc. A vicious circle may develop in which anxiety and G.I. disorders intensify each other.

Prime objectives of total patient therapy include: symptomatic relief, removal of apprehensions about organic disease and helping the patient understand how excessive anxiety may trigger physical complaints. Brief counseling and the utilization of favorable factors in the patient's personality and environment can often provide needed support.

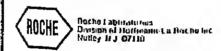
Antianxiety therapy

Antianxiety medication may prove a valuable supplement when counseling and reassurance are not sufficient to allay the patient's emotional distress and relieve his anxiety-provoked physical complaints. The agent prescribed should be both clini-

cally effective and generally free from undesirable side effects. Librium meets these requirements with a high degree of consistency, and has a wide margin of safety and an excellent record of patient acceptance. The most common side effects reported have been drowsiness, ataxia and confusion, particularly in the elderly and debilitated.

Whenever anxiety is a clinically significant factor, adjunctive Librium is used concomitantly with specific gastrointestinal drugs, such as anticholinergic agents. Once anxiety has been reduced to appropriate levels, treatment with Librium should be discontinued.

Forrelief of excessive anxiety adjunctive Librium* 10 mg (chlordiazepoxide HCl) lor2 capsules t.i.d./q.i.d.





Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states.

Contraindications: Patients with known hypersensitivity to the drug. Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acring drugs, caution parients against hazardous occupations requiring complete mental alertness (s.g., operaring machinery, driving). Though physical and psychologi save rarely been reported on recommended doses, use caution in administering to addiction prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally nor recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiaring drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in

presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive clubbren. Employ usual precautions in teatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, araxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by pruper design adjustment, but are also occasionally observed at the lower dusage rages. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, monor mensural irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido-all infrequent and generally controlled with dusage technition, changes in EEG patterns (low-voltage fast activity) may appear during and after meatmen; blood dyserasias (including agranuloxyrosis), joundice and heparic disfunction have been reported exessimally, making periodic blood counts and liver function tests advisable during protracted therapy.

Supplied: Librium Capsules containing 5 mg, 10 mg or 25 mg chlordizzepoxide HCl. Librirahs Tablers containing 5 mg, 10 mg ur 25 mg

Dialysis Payment Fight Unites Nephrologists

Washington-Nephrologists across the country are uniting to fight the Depart- for kidney transplant patients. ment of Health, Education, and Welfare and the Social Security Administration on what the physicians regard as misadministration of the new Federal pro- took effect-July 1. gram intended to pay for 80 per cent of the costs of kidney transplantation and

The SSA is currently some \$60,000,-000 in arrears in payments to hospitals and dialysis centers, and HEW has refused to allow separate fce-for-service payments to private nephrologists who are providing "normal" treatment for stable dialysis patients.

HEW's claim is that stable patients do not require regular supervisory care of nephrologists, that any costs for such care are part of the dialysis unit's administrative overhead and are included in the lump-sum payment the SSA makes to dialysis providers, and that nephrolo- while walting for the center to open." gists should therefore arrange with the centers for any remuneration.

Dr. Eli A. Friedman, chief of dialysis ni Downstate Medical Center, Brooklyn, called the Government's new rules "a Is that although the new funding legisla-

vide consultation and treatment services

The SSA has also ordered a freeze on the certification of new dialysis centers as of the date the dialysis funding law

According to Irwin Wolkstein, deputy director for policy of the SSA's Bureau of Health Insurance, to allow new certi-regulations. fications at this time "would be an invitation for entrepreneurs to open additional facilities . . . and when you have too many centers you increase the cost of the care and lower the quality."

The freeze has stalled a proposed unit in Brooklyn intended to be the referral center for six hospitals.

"We are holding patients suboptimally because the Brooklyn Kidney Center is unable to open," Dr. Friedman asid. "and I have no other place to refer them. Some of these patients may die

The SSA told MEDICAL TRIBUNE that a decision on allowing some limited new certifications-"exceptions"-is due soon.

One of the nephrologista' complaints national scandal." A similar fee problem tion was enacted last year, the SSA issued

exists for private nephrologists who probefore it went into effect.

> In New Jersey, a group of nephrologists have handed together to file suit in U.S. District Court charging the SSA with illegally promulgating the interim rules without required hearings and notice. The group liopes to secure a restraining order against restrictions in the

SSA Says It Will Catch Up

The SSA admits the situation is confused but claims it will eatch up with bills from dialysis ceaters by early next year. It has emergency provisions, it says, for immediate payment to any certified centers that are in dire financial straits as n result of the payment lng.

In many areas, nephrologists who have not contracted with dialysis centers for remuneration are not being paid.

Dr. Robert S. Rigolosi, director of nephrology at Holy Name Hospilul in Tenneck, N.J., reported that the SSA's guidelines and failure to pay what it owed immediately created difficulty for all existing dialysis centers and threaten every dialysis unit in the country."

Dr. Rigolosl aaid that HEW's view that

stable dialysis patients require accare by nephrologists is unrealistic.

At Holy Name Hospital "there are uephrologists treating dialysis patients who are working without pay, but we have made a pledge that we will treat these palients regardless" of the HEW rules, Dr. Rigolosi stated.

Dr. Robert G. Muth, director of nephrology at Research Hospital and Medicul Center, Kansus City, Mo., 16ported that nephrologists there are also working without pay but said he is submilling documentation that aephrologists services are required and is billing the Government for these services. He is uncertain whether the SSA will allow the claims.

Dr. Ailrinn I. Katz, head of the acphrology section at University of Chicago Hospital and Clinics, said he "fully disagreed" with the HEW refusal to cover fee-for-service charges by nephrologists.

Dr. Morrell M. Avram, director of the nephrology division of Long Island College Hospital and director of the new Brooklyn Kidney Center, complained that "the dialysis patient does not have a physician any more, and these are the physicians who treat the sickest of pa-

Downstate's Dr. Friedman charged that HEW, by declaring the services of nephrologists to stoble patients are a part of the over-all administrative costs of the operation of dialysis centers, "in one fell swoop, socialized medicine for nephrologists."

"What this has done is to force the nephrologist to become n snlaried employce of the hospital," he said, "HEW does not understand the

urgency of this situation," Holy Name's Dr. Rigolosi commented.

The SSA has set an all-inclusive limit of \$150 per dinlysis on its payments for stable patients, although, according to an HEW spokesman, "we will pay more than \$150 when good reasons can be shown" for a higher charge.

Dialysis charges are said to vary around the country from a low of \$120 by some centers in New York City to some \$250 per dialysis in Los Angeles, Dr. Friedman

But Dr. E. I., Becker, of New York Hospital-Cornell Medical Center, president of the National Kidney Foundation, was more sympathetic to the SSA and its regulations.

"The problems here are of such magultude," he said, "that It will take thus for them to be worked out."

The SSA's Mr. Wolkstein admitted that the agency is "not up to date with our billings." He said that it will take some months for the system to get into reason-Rbly good order,

Hormone Test Helps In Choosing Therapy For Tumor of Breast

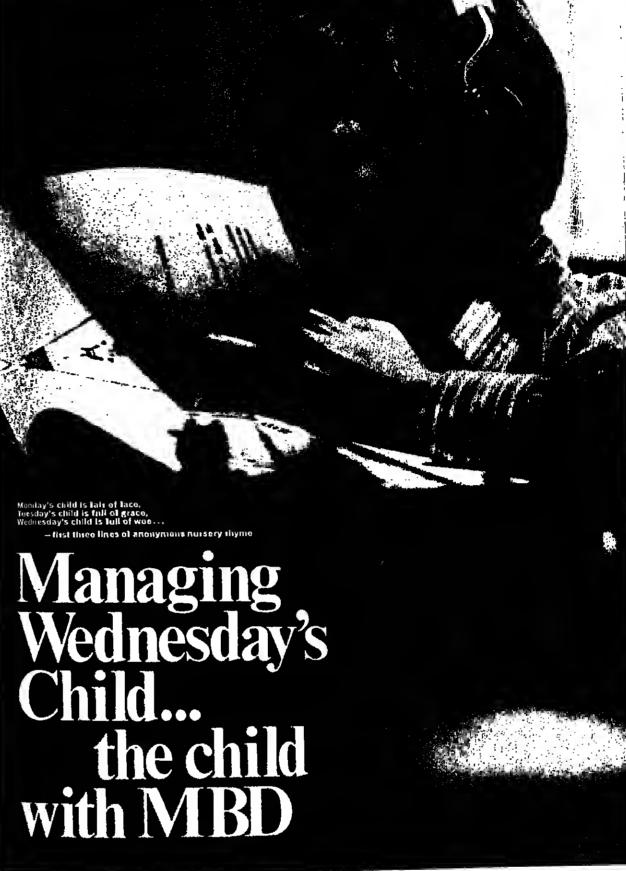
Continued from page 1 ent with prolactin and estrogen or pro-

lectin and testosterone, it would seem wise to combine both antiprolactin and anti-sex hormone measures. In this way It is hoped that such methodology may replace the surgical lottery that at present faces the inilividual patient with recurrent breast enncer."

Regressions of three to 18 months have been observed in hormone-dependent breast cancers following therapy suggested by the diagnostic technique developed by his tumor biology group. Dr. Hobbs aaid.

"As auch, tha in vitro test can spare R breast cancer patient with a hormonedependent tumor an unnecessary operation. Although we cannot speak of a cure of breast cancer in any sense at thia time, we bolleve that the test offers the patient a somewhat more comfortable life while under treatment."

In recognition of the value of the test, Dr. Hobbs and his group were recently awarded the prestigious Paul Martini International Prizo. His colleagues include Drs. Herschel Flax, Husseln Salik, William Brander, and Kenneth Newton.



"Wednesday's child is full of woe" It need not be this way for the MBD child.

He can learn and adjust if given a helping hand.

Without help, the MBD child may be a slow reader, can find writing difficult, and arithmetic hard to grasp. He may be excitable, and his actions can be disruptive. The result can seriously hamper his educational and social development.

But, properly diagnosed and treated, MBD—Minimal Brain Dysfunction—can be brought under control so that the afflicted child can develop normally.

And Ritalin can play an important part in the total rehabilitation program of the MBD child, which includes remedial measures at home and at school. It's currently the drug of choice in many MBD situations. Ritalin is well tolerated. It

can help control the excessive motor activity of the MBD child and ameliorate behavioral and learning problems.

Of course, Ritalin is not indicated for childhood person ality and behavioral disorders not associated with MBD.

Ritalin[®] (methylphenidate) only when medication is indicated

Ritalin® hydrochloride® (mathylphenidata hydrochloride)

TABLETS
IMDICATION
Minimal Brain Dystunction in Childran—ea adjunctive therapy to other ramedial maasures (osychological, educational, social)
Special Olagnostic Considerations
Special Olagnostic Considerations
Special Olagnostic Hore is no single diagnostic leal.
Adequate diagnosis requires the use not only of medical but of special psychological, aducational, and social rasourcas.

cal but of special psychological, aducational, and sucial rasources.

Characterlatics commonly reported include: chronic history of short attention soan, distractibility, smotional lebility, impulsibility, and moderate to savera hyperactivity; minor neurological signs and abnormet EEG, tserning may or may not be impaired. The diagnosts of MBD must be besed upon a complete history and evoluation of the child and not solally on the presence of one or more of these characteristics. Orug frastment is not indicated for all childran with MBO. Stimulants are not intended for use in the child who exhibits aymptome secondary to environmental factors end/or prims ty osychistiric disorders, including psychosia. Appropriate educational placement is assential and psychosociel intervantion is generally necessary. When remedial massures alone are inauficient, the decision to prescribe stimulant medication will depend upon the ohysician's assessment of the chronicity and severity of the child's symptoms.

CONTRAINDICATIONB

CONTRAINDICATIONS Marked anxiety, tassion, and agitation, since Elialin may eggravate frase symptoms. Also confraindicated in patients known to be hypersensitive to the drug and in petients with glaucoma.

WARNINGA

WARNINGS
Ritalin should not be used in childran under six years, alince safety and elificacy in this aga group have not bean established.
Sufficient data on salety and afficacy of long-term use of Ettalin in children with minimal brain dystunction ere not yet available. Although a causal relationship has not been astablished, auppression of growth (7e, weight gain and/or height) has been reported with long-term use of stimulants in children. Therefore, children requiring long-term therepy should be carefully monitored.
Ritslin should not be used for severe depression of elither exogenous or endogenous origin or for the prevention of normal fallique sistes.
Ritelin may lower the convulsive threshold in pallants with or without prior selzures; with or without prior EEG abnormalities, even in ebsence of selzuree. Sale concomitant use of anticonvulsents and Ritalin has not been established. It selzures occur, Ritalin should be discontinuad.

be discontinuad. Use caulicusly in patients with hypertension. Blood pressure ahould be monitored at epgropriate intervala in sii patanis taking Ritalin, espacially those

with hypertension.

Drug Interactions
Ritalin may discrease the hypotensive effect of guesthidine. Use caullously with greaser agents and MAO inhibitors. Ritalin may inhibit the metabolism of couractin a nitocagulants, anticonvulsents (phanobarbital, diphanyihydantoin, grimidono), chanyibutazone, and tricyclic antidagrassants (Imigramine, desioramine). Downward dosage adjustments of these drugs may be required when given concomitantly with Ritalin.

Usage in Pragnerey
Adequals animel regroduction studies to establish sele use of Ritalin during pregnancy have not been conducted. Therstore, until more information is evaliable, Ritalin should not be prascribed for woman of childbearing ege unlass, in the opinion of the physician, the gotantist benefits outweigh the possible risks.

Drug Dapandance Ritalin should be given cautiously to amotionally unstable patients, such as those with a history of drug dependence or alcoholism, because such Os-tionis may increase desage on their own initiative. tiania may increase dosage on their own initiative.
Chronicelly abusive use can leed to merked tolerance and psychlo depandance with varying degrees of abnormal behavior. Frank psychotic episodes can occur, ospecia ily with parenteral abuse. Carelul euporvision is required during drug withdrawal, since severo depression as woll as the eliocis of chronic overectivity can be unmosted. Long-term lottow-up may be required because of the pallent's basic personality disturbances.

PRECAUTIONS
Patients with an eloment of agitation may react adversaly; discontinue tharapy ill nacessary. Periodic C3C, differential, end platelat counts are advised during prolonged therapy.

advised during prolonged therapy.

ADVERSE REACTIONS
Narvousness and insomnie ere tha most common advarse reactione but are usually controlled by reducing dosage and omitting the drug in the alternoon or avening. Other reactions include: hypersanstivity finctuding skin reab, uriteria, faver, arthraigle, extollative dormatitis, erythema multitorme with histopolinological findings of nacrotizing vasculitis, and thrombocytopenic purpura); anorexis; nauses; dizziness; palpitsilona; headache; dyskinesie; drowalness; blood pressure and pulsa changes, both up and down ischycardie; angina; cardiac arrhythmie; abdominel pain; weight loss during prolonged therepy. Toxic psychosis has been reported. Although a definite causal retailonship has not been established, the following have been reported in patients taking this drugs laukopania end/or ensmia; a lew instances ot scalp hair loss.

drug jaukopania end/or ensmisi a law instances of scalp hatr loss. In children, loss of appatite, ebdominal pain, weight loss during prolonged therapy, insomnia, and ischy cardle may occur more trequently; however, eny of i other adverse reactions listed above may also occur DOSAGE ANO ADMINISTRATION Childran_with Minimal Brain Dystunction (6 years

and over)
Start with amati dates (eg. 5 mg betore breaklest end
lunch) with gradual increments of 5 to 10 mg weekly.
Pelly dozage above 60 mg la not recommended.

Daily dosage above 60 mg la not recommended, it improvement is not observed after appropriate dosage adjustment over a one-month pariod, tha drug should be discontinued. If paradoxical agravation of symptoms or other advarsa ellistis occur, reduce dosage, or, it necessary, discontinus the drug. Ritalin should be periodically discontinued to essays the chitd's condition. Improvement may be sustained when the drug is alther temporarily or parmanently discontinued.

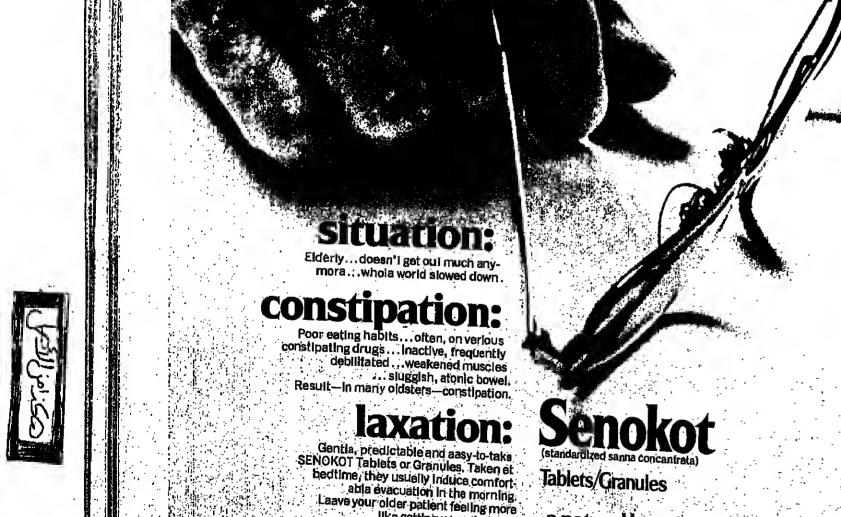
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Clinical Trials







New Bone Scan More Sensitive Than X-Ray

MONTREAL—Bone scanning with technetinm^{00a}-labeled diphosphonate is substantially more sensitiva than x-ray in detecting metastatic disease, Dr. John D. Osmond III of the Massachusetts General Hospital reported to the American three of the lesions in these false-nega-Roentgen Rny Society meeting here.

Dr. Osmond's conclusion was drawn from the first 800 scans done at Massechusetts General with this new orgenic bone-scanning agent, developed at the hospital early in 1971 by Castronovo and Callahan. Technetium scans were compared with conventional roentgenographic studies of esseous metastases in 259 patients with histologically proven breast, prostete, and lung enreinomas.

Both hona surveys were conducted within a lwo-week interval; scens and stendard x-rays were interpreted by two separate teams, each with two different radiologists. Although the scanner is a more sensitive detector of lesions, able to find some metaatases missed by x-ray, x-ray was needed to interpret 10 per cent of the scans in this series.

Scan and x-ray were both positive in 17 per cent of the 259 patients studied; in another 13 per cent with poaltive

Immune Response To Cancer Indicated By Lymphocyte Test

CHICAGO-An In vitro test of a petient's ability to mount en immunelogic response against cencar has been developed by e group at U.C.L.A.

Dr. Theodore X. O'Connell told the American College of Surgeons here that the test can be performed immediately, with no need to sensitize the patient first, permitting therapy to stert sooner, Scrial studies may be performed to determine changes in the immune respense as e result of therapy or courae of disease.

Dr. O'Connell end his Investigative team found that lymphocytes from cancer patients exhibit a dapressed response In blastogenic lymphocyte-function tests. The deficit is not related to the stage of discese. Many patients with rether locallzed disease are markedly immune defleient. We would expect that they would hava a difficult time containing their of their disease."

Heart Muscle Can Be Saved If Revascularized Quickly

University of Hawali Investige ► If the heart muscle damaged by coronary occlusion cae ba revascularized within four bours, some of the muscle area can be preserved, and Dr. John R. Soeter, University of Hawaii School of Medicine, Honolulu.

Dr. Socier and his collaboratara siudied the progression of the size of infarcts ie monkeys following acute obstruction of a major comary artery and the effect of restoretion of blood flow on the size of the infarcts. Tissua studied indicated that revascularization up to four hours after. the occlusion decreased inferct area.

scans and positive x-rays some metastases visual clarity of x-ray, interpretation muy x-ray. Nineteen per cent demonstrated positive scans and nagalive x-rays. Although 2 per cent of these patients had negetive scans and positive x-rays, only tive scans were active.

demonstrated by scan were missed by be difficult when acans are positivo and petients have single metastases or such other problems as degenerative joint disease, hyperostotis frontalis interna, and Paget's disease. However, the scan'a ebility to pick up multiple bony metestatic sites and to locate those missed by Because scaneing lecks the obvious x-ray ara its outstanding features.

tivity of detection of metastatic disease."

In this series, Dr. Osmond said, there were 131 patients who "demonstrated evidence of bony spread of tumor. Fortyeight of these patients, or 37 per cent of the total number with metastases, had roentgenographic studies that were interpreted as normal. From this same group of 131 patients demonstrating evidence for nictastnses, 84 patients demonstrated increased information on the scae . . . e 63 per cent Improvement in the sensi-

Wednesday, November 14, 1973

10 More Risk Factors Hike Bypass Mortality still too short for complete conclusions, compromise a cardiac reserve already TORONTO-Any combination of four or "the early results show that surgically treated patients have an improved quality

note of seven hemodynamic risk factors in patients undergoing emergency aortoapparaty bypass surgery for impending gonardial infarction results in greatly creased mortality, according to Dr. godge Pifarré, of the Department of Supery, Loyola University Medical Cen-Maywood, III.

The seven evaluative risk factors se congestivo heart-failure, more than hee-vessel coronary disease, left venmedar end-dinstolic pressure greater than 12 mm. Hg, cardine index less than 21 L/minute/sq. M., stroke index less than 35 ml/bent/sq. M., estimated car-face work less than 240 units (mean antic pressure times cardine index), and excelon fraction less than t).5t).

Dr. Pifarré and a group of colleagues sudied 40 patients who underwent the pocedure during the six-month period from January through June, 1973. Fewer han four of the risk factors were present in 26 patients, and there were no deaths is this group. The 14 patients with four or more risk factors had a mortality of % per cent, he reported here to the unwal meeting af the American College of

Although the follow-up periods are

of life in the early postoperative period," Dr. Pifarré said.

Four patients died, a surgical mortality of 10 per cent, and the postoperative infarction rate mmong the 36 survivors was 3 per cent (one patient), ligures that compare favorably with the anteomes for similar patients treated medically. Dr. Pifarré said that for such patients "a mortality of 6 per cent in anticongulated patients after two mouths and of 50 per cent in those without nuticoagulation has been reported."

Accolorated Angina Noted

All 40 patients laid preinfarction or accelerated augina, Dr. Pifurré said; this is characterized by increasing frequency and severity of anginal uttacks in a patient either with previously stable angina or without previous angina. "The severity and frequency progress to ineapacity, and rest or nocturnal angina is quite common," he noted. "In most cases there are no enzyme changes and only transient ischemic changes in the ECG. Many of the patients develop myoenrdial infaretions or arrhythmias, which can further

In this study, there were 10 women and 30 men, 38 to 67 years old. Five were under medical treatment for hypertension; 17 had at least one previous myocardial infarction. Oaset of symptoms varied from four weeks to 15 years before the patient's admission to hospital, with progressive aggravation of pain and disability for one to two weeks. After receat myocardial infarction was ruled out by serial enzyme determinations and ECG patterns, the patients underwent coronary ungiography and left heart catheterizntion; 90 per cent were operated on within 24 hours of study; those who were de-layed for more than 24 hours were anticoagulated with heparia to maintain n

twice-normal clotting time. Using reversed segments of saphenous vein, the surgeons implanted 85 aortocoronary bypasses. Based on the number of diseased vessels, patients were divided into four groups. The first consisted of 19 patients with three or more diseased vessels; 11 of these had three bypasses each and eight had two each. In three of the four deaths in this highest-risk group, cardiopulmonary bypass could not be discontinued. In the feurth, the patient died 10 days postoperatively from n mas-

aive anterolateral myocardial infarction. In the second group, 16 patients had two diseased vessels. Fourteen had complete revascularization with a double bypass, and one was completely revascufarized with a triple bypass. The remain-

ing patient had a single bypass. Three patients in group three with isolated lesions in the left anterior de-

scending had a single bypass. Finally, in the fourth group, two pa-tients with 90 per cent occlusion of the main left coronary artery received double bypass to the left system.

"It becomes clear that when the function of the ventricle is poor, the patient is more likely to do poorly," Dr. Pifarré said in an interview with MEDICAL TRIA-UNE. "If we have e patient or a group of patients with more than four of the risk factors, we know that the risk is likely to be much higher than we would like to accapt." His group considers that this type of coronary surgery "sbould today carry with it a risk of less than 5 per cent, and if there are more than four risk fectors present, we know the 5 per cent figure will be surpassed."

Dr. Pifarré's co-workera in the atudy were Drs. John M. Moran, Rimgaudas Nemickas, Patrick J. Scanlon, James V. Talano, John F. Moran, Rolf Gunnar, and John R. Tobin, of the Departments of Surgery and Medicine, Loyola Uni-versity Medical Center, and the Cardiopulmonary Surgical Section, Veterana Administration Hospitel, Hines, Ill.

Once the bypass graft is in place, there mny be other problems, however. Ona difficulty, tha development of cardiac arrhythmies during selectiva cortocoronary bypass graft engiography, was successfully prevented by right airial pacing. Drs. Kenneth B. Desser and Alberto Benchlmol, of the Institute for Cardiovnscular Disease, Good Samaritan Hospltal, Phoenix, Ariz., told the meeting.

Postoperativa Pain Cited

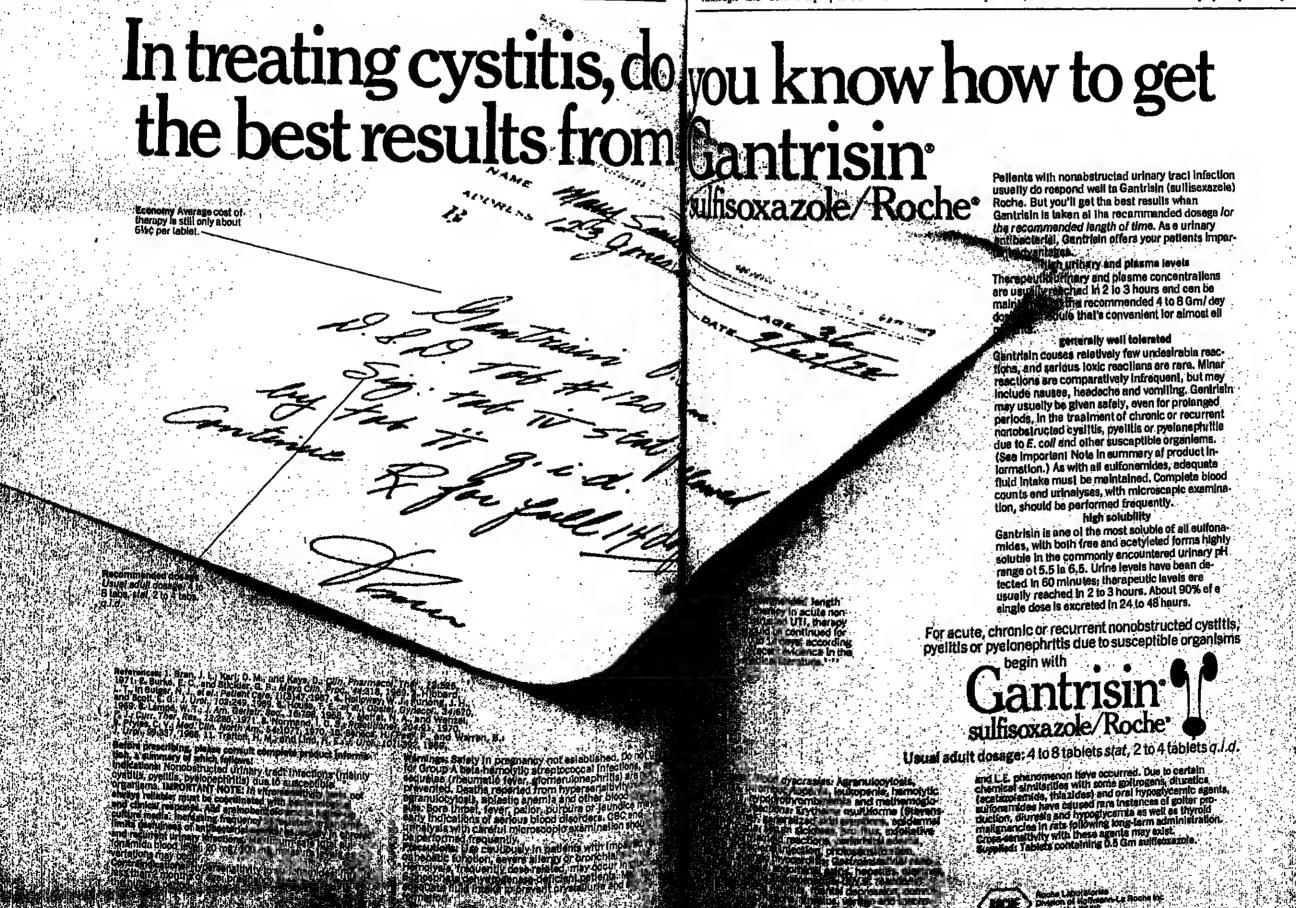
Speaking for the team, Dr. Desser noted that aortocoronary hypass grefts, now in reintively widespread use, clearly nffect major degrees of myocardial perfusion; but, because of the posloperative recurrence of pain, coupled with the need to determine the nantomie stetus of the graft, there has also been un increasing use of selective aortocoronery graft erteriography. During graft opecification with contrest media, there have been "cardine arrhythmlus ekin to those noted during selective coronery nteriography.

Routino right atrial pacing, he said, is "a useful method for the prevention of a variety of ndvarse electrical and hemodynemic ehnormalities" during hypass angiogrephy. Drs. Desser and Benchimol nnalyzed the reaults in 30 male patienta who had aortoeoronary bypass graft lmplantation for angine that was refractory to medical treatment. Ages renged from 42 to 70 years with a mean of 54. Isolated right coronnry grafts were implanted in 10 patients, 12 had isolated left anterior descending coronary grafts, sevan had combined right and left enterior descending grafts, and one hed grafts to the right, left enterior, and elreumflex vessels. There were, therefore, 39 patent grafta in 30 patients.

Two injections of contrast medium (75 per cent Hypaque) were made into each graft with a hand syringe. The first njection was made without atrial pacing, the aecond during right atrial pecing, which was begun one minute before the injection. "Pacing was initiated at the lowest driving rate which resulted in the most complete and consistent right atriel capture ai twice the slimulating thresbold," Dr. Desser aaid.

Of the 39 anglograma done without pacing, cardiac arrhythmias occurred in 31. "In contrast, only two of 39 saphenous vein bypass injections performed during right atrial pacing resulted in cardiac arrbythmlas."

Typically, without pacing there was sinus bradycardia, a rate less than 60/ minute, Salvos of ventricular premature depolarizations with the bradycardia, sinoatrial arrest, end A-V junctional escape beats were common. In one unpaced patient, there was complete atrioventricular



Britain's NHS at 25: A Matter of Saving the GP

into impoverishment. The choice was to enter another specialty or to emigrate."

A single detail may help to highlight his point: a study nine years ago showed that 35 per cent of physicians' offices

How had the service that was launched with such high hopes and genuine social commitment reached this nadir? And how did it make its come-

The stability that now prevails may well testify to the system's capacity for accommodating itself to change. It certainly testifies to two other factors—the serious miscalculations made by the founders of the NHS about the cost of a national health care program and the equally serious miscalculations by the profession about the cost of keeping a general practitioner in reasonable finan-

Carry Some Usefut Lessons

Both points come down to o question of money and carry some useful lessons. The Beveridge report of 1945, laying the basis for the health service had estimated that expenditures would run of the sterling equivalent of obout \$800,000,-000 a year and would remain essentially unchanged for the next 20 years. The reasoning-astounding as it moy be in hindsight—was that the costs of bealth care would go down as the notion's health improved under a comprehensive health care delivery system.

In feet, NHS expenditures rose from about \$830,000,000 in 1948-49, when the service was launched, to more than double five years later-a rise accompanied by the continuing political drumbeat of accusotions from the House of Commons that the NHS was riddled with waste and extravagance.

Inflotion, of course, accounted for some of the rise, and o growing-rather than declining-popular demand for medical services came into being with the availability of comprehensive care.

The political results of this miscalculation, which had consequences for years to come, were summed up recently by Rudolf Klein, of London's Centre for Studies in Sociol Policy: "The NHS was [ploced] on the dafensive. The main nnxety of its administrators seema to have been to protect themsalves against the accusation of wasting public money, rathar thon explore the bost ways of spending it,"

On its side, the medical profession contributed a formula for paying the general practitioner that was to haunt it for nearly two decades. As a condition for participoting in the proposed bealth service, the profession insisted, and tha Government finally agreed, that G.P.s would not be placed on government salory---"Wc're not clvii servants" ran the proud cloim-but would become indepandent contractors, to be paid for the number of their patients annually. In contrast, specialists, hospital ataffs, and public health physicians all accepted

Income Lowar Than Others'

Ten years later, if the G.P.s were going broke, they were overworked, underequipped, and understaffed, and their incomes were certainly not keeping pace with those of other professions.

In settling for a per capita rata of payment, they had also accopted the elimination of fee-for-service or any form of substitute remuneration. The G.P.s had agreed to provide year-round, 24-hour medical care for up to 3,500 patiants per doctor. But no provision was made for tha differing requirements of o healthy young odult, for example, and an aging coupla with chronic ailments; or for complete obstetrlo services; or for afterhours house calls.

equipment. The physician who wanted to has its own history and its own value provide a washbasin for his patients did systems and has produced its separate so at his own expense, out of his per allegiances.

economy-minded government, this was all to the good.

patient, or your interest in good medicapitation system was virtually no inducement to poor service."

In retrospect, what is surprising is not that G.P.s began to emigrate but that so

Sir George Godber, chief medical officer of the Department of Health and Social Security, in an interview with MEDICAL TRIBUNE, pnid his tribute to the G.P.'s sense of responsibility in those days: "The fact is that the general practitioner, especially at the outset, carried the National Health Service on his ahoulders. If ha had not been avnilabla, the hospital outpatient services would have been swamped. The G.P.s saved the day. They were the key."

By the early '60s it was obvious that the NHS would have to save the G.P. if it was to survive, at least along the ambitious lines that were originally envisioned. A radically revised schedule of fees and allowances, amounting to a virtually new system of payment, was formulated and established through the joint effort of the B.M.A. ond the Gov-

Per capita payment remained os the heart of the G.P. contract. But this was cushioned by the following additional payments: a basic practice allowance, a basic allowance for "out-of-hours" calls, as well as an extra "oul-of-hours" capitation fee for each patient in excess of 1,000 on the G.P.'s list; a lorger capitation fee for each patient over oge 65; and a basic fee for each patient receiving complete maternity services.

"Seniority" Allowances Graduated

There were additional allowances for physicions who settled in "underdoctored" areas or joined group practices, and there were graduoted "seniority" allowances for years of service.

Equally important, the G.P. was completoly reimbursed for his office rent and taxes and was reimbursed 70 per cont for the money he apent on office staff. If his offica was port of his home, be woa reimbursed for what it would have cost if he were renting the premises.

How much does this oil come to in annuai Income?

On the British economic graph, the G.P. is doing neither badly nor outstandingly well. Most estimates agree that the British physician's carnings (including thosa of the specialist and the public health physician) place him in the upper 10 per ceat of the population.

But at an average of £5,750 (\$14,-300) net for the general practitioner, and £7,599 (\$19,000) net annually for a top specialist, it is obvious that the profession is somewhere in the low-middle segment of that 10 per cent.

The B.M.A., which compiled these data, as of April, 1973, stresses that the of service ore mora immediately pressing G.P. has more than doubled his net inclaist is 71 per cent better off. the surface. Further, the rates of increase for doctor's income are in excess of the cost-of-living rises for the same period.

It must be remembered, too, that these fixed government salaries or contracts. Almost ail specialists have a roster of private patients, bringing in anywhere from \$5,000 to \$20,000 more per year, and many G.P.s make extra money by contracting to serve as insurance, school, or hotel physicians.

Comparisons with the earnings of physicians in other nations, including those in Western European countries with national health programs of their own, are, Nor was there any provision for in a sense, besida the point. Each system

Ernest Colin-Ross, a London generni practitioner, "that from most points of "The greater your attraction for the view the NHS was an improvement. Most physicians, except for those in fashcine, the less money you had," MEDICAL ionable areas, were not making much Tainune was told by a B.M.A. leader, money in those days. The NHS was ulsn who asked not to be identified. "The an improvement for the physician who was not good at demanding payment of

> As for the present, he added: "I'll he shot for saying this: I don't need mure money. I don't need a yacht. On the other hand, my attitude muy not he

'Money is not the real hone of contention," said Dr. Dennis Cook, secretary of the Inner London Medical Committee. "Physicians are entrently more coneerned about the terms of service und the complaint procedures, and the demands upon them, than about their incomes. The majority of physicions are not irked by the incomes they earn. There are 2,000 G.P.s on the list of the inner London Executive Council, and last year only one suffered financial em-

Studying Continental Counterparta

On the other hand, there is no doubt that the profession is looking closely of the earnings of its Continental counterparts, especially sinca Britain's entry into the Common Market. And while strict comparisons ore difficult, it would appear that the doctor in other European health insurance progroms may be earning more than his British collengue. The reason is held to stem from the feet that all of the European insurance progroms are based on one or onother form of fee-forservice, rather thon copitotion. No onc here, however, is calling for an end to the capitation system.

As for comporisons with the United States, a fairly prevolent viewpoint was oleed by Dr. Jnmes Bramble of Leeds, former head of the militant Young Hospitul Stnff Physicians and now deputy choirman of the B.M.A.'s Junior Flospital Stoff Group Committee.

"I'm not suggesting that we want as much as doctors in the United States," he said. "We don't need that much. Wo could use more, of course. Chiefly, whut we need la n reduction in the pressure on us. You must remember that those nf us in my gonoration hove never known aituation of privato practice. I think that the majority of us would like to sec private practice preserved, mainly as a standard of comparison.

"Tho NHS is a fontastic boon to the average member of tha community. Though our heolth care may not be os good as some of the very highest practiced in the United States, it is consistently good, immediately avoilable, and strong on rehabilitation.

"The stress is on total care, and treatment by the G.P. or the specialist is only o small part of that concept, especially ln cases of cbronic illness. The physician is only part of the team, the head chap."

subject is never, of course, far below

Any discussion of terms of servicemaaniag largely the rules governing the doctor's obligations to bls patients—has figures include only the earnings from G.P. is under contract to provide all "necessary and proper" care for avery man, woman, aad child on his list.

The contractual commitment is a round-the-clock commitment; the physiciau is responsibla for 24 hours of care a day and must meet that responsibility himself or deputize another physician in his place. The NHS contract provides an allowance for "after hours" deputies.

As a result, Dr. Cook pointed out, the physician is vuinerable to excessive demands from patients, some of whom may consult him more often than their aliments would seem to justify.

"The most common complaint we get,"

make a home visit. The G.P. has the right to refuse a house call if, in bit judgment, it is not warronied. But if it is successfully proved that a visit was called for, the physician is in breach of contract, and subject to a fine-or to a malpractice suit if the patient wants to pursue it that far."

A physician may run into trouble, for example, by reassuring o patient on the phone that his symptoms are probably due to an "upset stomach" when, in fact a coronary occlusion is in progress.

"The second most common complaint," snid Dr. Cook, "is the charge that the doctor failed to examine prop-'The doctor didn't listen to my story. . . . He have o prescription without examining me. . . . Ho stood at the bed and didn't examine me."

Under law, a formal complaint must be investigated by the local Executive Council (composed of laymen and physicians) with whom the doctor has his NHS contract. Of 50 complaints investigated in the inner London area last year, Dr. Cook reported, the couocil decided 12 cases against physicians, finding that they had foiled to make house calls that should have been made, or had delayed unreasonably in coming. In a 13th case, the Conneil agreed with a government complaint that n physician had falsely issued a certificate of Illness to o worker who had been absent from his job.

Problam Not Very Sarlous

"Is the problem a serious one?" Dr. Cook asked rhetorically. "Not really, Fifty formal complaints n year in an urban nreo with 2,000 doctors and 3,000,000 patients is n comfortable figurel I myself practiced for 13 years without even knowing the terms of sarvice in my contract. In all of that time there was one complaint against me and that was dismissed."

He added: "The extent of the problem can be seen by the size of the lasurance premium to the Medical Defense Union: general practitioner in Great Britaio gets unlimited indemnity for £21 a year

Next article: Emergence of general practice as a status specialty.

Study Finds No Link Of Coffee Drinking, Myocardial Infarct

OAKLAND, CALIF.—Available evidence does not support contantions that there is an association between coffee drinking and myocardlal infarction, according to the authors of a study at the Kaiser Permonente Medicai Care Program here.

Such an association had been found io a sludy by the Boston Collaborative Drug Survelllanec Program, and the suthors who reported it in Loncet suggested then it might be due to "a substance of aubstonces in coffee other than caffeine."

Tha authors of the Boston study also based on the fact that "patients who drink [coffee] heavily and patients who develop myocardial infarction have simiiar personalities, and thus coffee drinking would only be indirectly related to myocardial infarction."

The California Investigators decided there was no association between coffee and myocardial infarction after studying a group of 464 myocardial infarction patients, a group of ordinary controls, and a group of risk controls.

However, an association was found between coffee drinking and elgarette smoking; 34 per cent of the smokers drank more than six cups a day, while only 10 per cent of the nonsmokers drank that much.

The cariler Boston study had also found a strong correlation between coffee drinking and smoking.

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When potential moon germs were a threat NASA had selected a broad-spectrum BETADINE microbicide for decontamination of the lunar capsules in Apollo 11/12/14 spleshdowns.

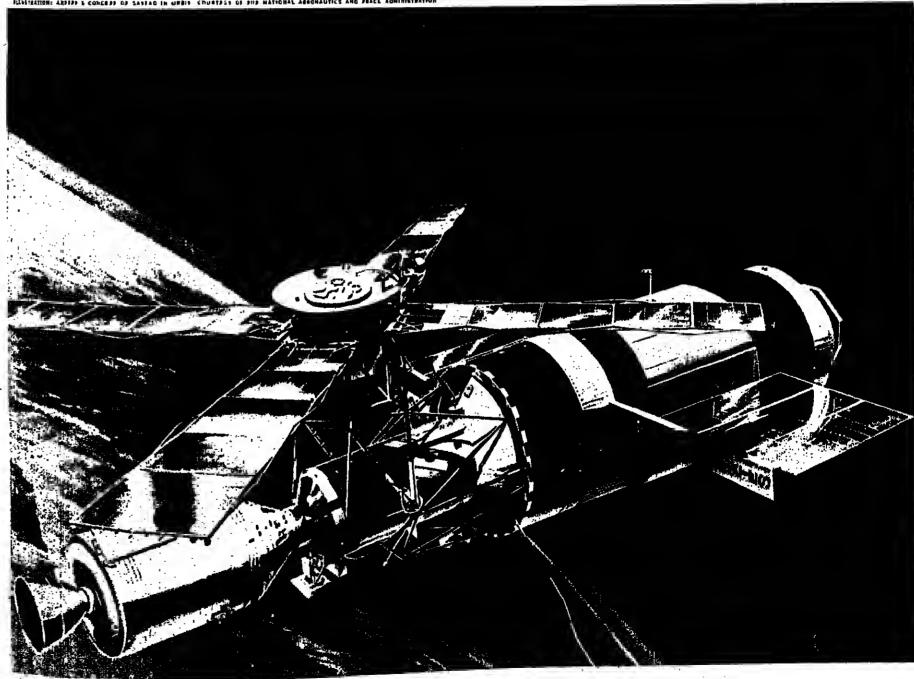
Now NASA again selects a BETADINE microbicide for environmental protection of Skylab astronauts against infection. BETADINE Solution is circling the earth in orbit, to be used regularly for disinfection of certain equipment and for contingencies.

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Aaron's Physician Proves **Good Prophet for Homers**

ATLANTA, GA.-When Henry Aaron of the Atlanta Braves hits his 715th career home run next year, one of the loudest cheers will be from Dr. Robert E. Wells, Atlanta orthopedist and consultant to the Braves and a staunch admirer of the 39-year-old superstar.

Dr. Wells, one of the physicians who treat Hank Aaron, predicted more than a year ago that "Hammerin' Hank" would break Babe Ruth's long-standing major-league record of 714, long considered out of reach. The Babe set that mark 38 years ago.

in an interview with MEOICAL Tais-UNE (Junc 28, 1972), Dr. Wells said: "Speaking from a medical standpoint and as a baseball fan, I am confident thet Hank Aaron will pass Babe Ruth's record. I'll make a guess that Aaron will hit his 715th home run early in 1974."

It is now obvious that Dr. Wells was a good prophet. His patient hit his 713th homer in his next-to-last gamo this year. "It's hard to think of Hunk Anron as

n patient," Dr. Wells snid. "He's such nn amazing athlete and a tremendous person. He lina the body of a man six or eight years younger. As far ns his physical condition is concerned, there is no reason why ho should stop plnying

Prediction Was Aimost Wrong

"He was hitting home runs at such a fast elip in early and middle August that I thought he might break the record this year. As a matter of fact, I was pulling for him to do it even though it would have made my prediction wrong."

Dr. Wells pointed out that Aaron enjoyed a better year this year than last despite the fact that he played in fewer games. He beited 40 home runs this year, compared with 34 last year. No other 39-year-old player in baseball history bas ever done that. Aaron ran up 96 RBIs this year, compared with 77 last, and scored 84 runs, compered with 75. His batting average was .301, against .265. Aaron played la 120 games and misaed 42 this year.

"Aaron himself decides whether he is golag to play in a particular game," Dr. Wells pointed out. "He rarely played in a day gama after a night gama, and he aever played in both games of a double-

In the 1972 interview with Medical TRIBUNE, Aston asld he would have to atay "free of injuries" to break Ruth's record. "If I can stay bealthy," ha said, "then I think I can do it."

Fortunately, Aaron has had no serioua injuries or illnesses.

Dr. Wells raported that Aaron had "no problem" this year with an old knee lujury—a partial tear of a cartilage which had bothered blm in the past.

"Aaron did have some muscular soreness of the upper and lower back, caused by fatigue," tha physician related, "but a few days of rest and a little traction and heat atraightened that out.

"Ha had a short episode of int

few deys. He also had stamach cramps for a couple of days while an the West Caast, but doctors who treated him there attributed the cramps to na Infection that was going around."

Aaron has had only one fracture in his 20-year career as an autifelder in the National League. That was in his rookie year as a Milwaukee Brave whea he broke an ankle. (The Milwankee Braves became the Atlanta Braves in 1966.)

Dr. Wells said he daes not know of any medication that Aaron takes except an occasional aspirin.

"He hes no trouble sleeping," the physician said, "If he can get away from the ringing telephone."

Wherever Aaron goes now, he is besieged by autograph seekers, demands for newspaper, TV, and radio interviews. and requests for personal appearances of every kind imaginable. He has managed to stay remarkably cool, calm, and col-

"Aaron is very stable emotionally," Dr. Wells observed. "He not only gives the externel appearance of helag a placed man, but he doesn't heve any of the physical aymptons that go with emotlonai disturbances."

Extremely solf-disciplined, Aaron has no trouble keeping himself in shape. He avoids eating "too much bread and potatoes" and keeps his weight at about 190 pounds-well distributed on his 6foot frame. Neither Aaron nor anyone else has noticed any alowing down in

Aaron holds 11 major league and 18 National League butting records-more than any other player. Aaron and Wille Mays of the New York Mets are the only players to achieve both 600 home runs and 3,000 hits. Aaroa leads all other players in history in total bases (6,424) and extra-base hits (2,133).

Called Consistent, Durabia

"A lot of players have hit a lot of home runs for a few years," Dr. Wells commented, "but thay haven't had the consistency and durability of Hank

At the end of the 1973 season, Aaron seid he was "disappointed" that he did not break Ruth's record this year, but he added: "I'm glad that I can look back and feel that I've had a good year." He seld he planned to "rest up" and "get lost" for a faw days. Aaron, who is divorced, also plans to marry a preity Atlanta widow, Mrs. Billye Williams.

In the last game of the 1973 season, a crowd of more than 40,600 sat in a stendy drizzie and watched Henry Aaron hit three singles and a pop fly-but no homa runs. When he took his position In last field for the last time that day, the drenched crowd rose and gave Aaron an ovation that lasted more than five

Dr. Wells, one of the 40,600 who cheered, called it "one of the most exciting moments I've ever experienced in

Team Physician at Purdue Calls For National Survey of Sport Injuries

ers, and coaches should work with epldemiologists to develop a competant, oagoing, antionwide survey of athletie injuries, Dr. Loyal W. Combs, who is the team physician at Purdue University, sald bera.

Speaking at the 24th annual meeting of the National Athletic Trainers Assoclation, Dr. Combs declared: "It is im- a central area where a full-tima epiidentification and reporting of sports in-juries on a national level.

ATLANTA, GA.-Team physicians, train- organizations should pool their money and efforts to develop such a survay."

The Purdue team phyalclaa suggested that under a nationwide aystem of lajury reporting, five or six epidemiologists scattered over the country might be designated to collect data concerning athletic injuries.

demiologist wauld computerize and competently analyze all the statistics," Dr. Combs said.









Hank Aaron's 700th home rua-July 21.

might have thought.

Readers are invited to cantribute items af 100 wards or less to this column. Contributions should be mailed to Medical Triaune, 880 Third Avenue, New York, N.Y. 10022 N.Y., 10022.

IMMATERIA MEDICA

By DUDLEY STRAUS

The Hurry Condition of Potential Good Samarltans

Forty "unwitting" theological students at Princeton University were subjected to an experimental situation, accarding to a release from the American Psychological Association, and we've been trying to decide what grabs us the most—the experiment, its language, or the investigainrs' nrithmetic.

These 40 ministers-to-be were asked to prepare a short talk either on the parable of the good Samnritan or on your tions. They then were given a campus map with apecific directions for reaching a inborntory where the speech was to be

The "subjecta were told they were already inte for the session (high-hurry condition), were expected momentarily (intermediate-hurry condition), or that they could take their tima (low-bury ". (conditioa

Along their way was the booby trapgroaning, coughing person slumped la doorwny. Sixteen of the subjects stopped to help the "victini," the report says; of these, "63 per cent were lowhurry subjects; 45 per cent were intermediate-hurry subjects; 10 per cent were

high-luurry subjects." (As we work that out, we get a total uf 118 per cent, and we also get 10.08 divinity students in n law hurry, 7.2 in an intermediate hurry, and 1.6 ia a high

The investigators conclude that "the hurry condition of the subject proved significant to whether he would stop to help the victim." They also observe that "the lowly Samnritan, on the other haad, with little responsibility and time on his hands, could afford to stop and assist the distressed victlm."

We have an enormous store of brilliant comments to offer on this study, but our hurry state is penking, so desperate readora will just have to get along without

We had just learned, from the St. Louis County Medical Society Bulletin, of the existence of the American Trauma Society when we received a release from the Veternns Administration reporting a program that "provides veterans who are dropouts from the human race' an opportunity to complete college preparatory

We assume they were auffering from the American truma and hope that the society will get in touch with them shoul

"What is your diagnosis-psychophysic-offer cerebral anglography and biplace the Medrad injector and utilizes a film-various tranquilizers and mood elavators? Have you ever tried refe auch a patient to Alanon? In Alanon, instead of taking pills and blaming ber troubles on her busband, a woman can laarn how to cope with life and how to be happy in spite of her husbaad's alcohollsm-whether he quits drinking or not Alanon groups are composed of the apouses and other relatives and friends of alcoholics."

-Bulletin of the Orange County (Calif.) Medical Association. Thanks for the tip, but the diagnosis is going to take a blt longer than you

Preventing Emergency Calls #1

Wednesday, November 14, 1973

TOYS can be

With the Christmus toy shopping season here, both physicians and parents should be aware that toys-no matter how innocent they look-can be dangerous. In fiscal year 1973 nearly 515,000 injuries associated with toys, tricycles, and hicycles were trented in hospital emergency rooms alone. A poorly designed toy-or a toy in the hands of a child too young to hundle it-can cause permanent injury or death, waras the U.S. Consumer Product Safety Commission. The commisson has the power to ban toys with mechanical, electrical, or thermal hazards and has hanned some 1,500 individual

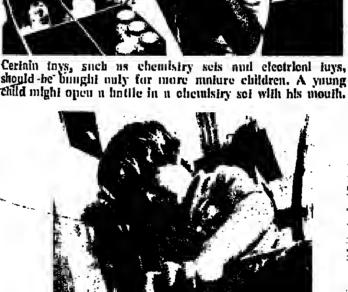
toys (a list of the banned toys is available through any CPSC area office). In addition, the commission recommends that certain common sense rules be followed in selecting

toys and that parents instruct their children

in the proper usage of their toys.



Toy pistol caps that exceed a sound level of 158 db. nre banned. No cup should be fired within a foot of car.



Darts are no longer sold as loys. However, they are still carried as sporting goods. Both darts and arrows should be played with only



Toys with small parts should be avoided for infants and toddiers. And parents should be aware that a toy bought for an older child may fall into the hands of a younger one. Fabrics on toys should be labeled nonflammable, washable, and hygienic.



Dr. Robert J. Izant, Jr., of Cleveland's University Hospitals, has studied bicycle injuries and found that many occur when two children attempt to ride the same bike.



We will supply tree two-color reprints of this poster, suitable for office display. Send your request to DANGEROUS TOYS, c/o Medical Tribune, 880 Third Avenue, New York, N.Y. 10022. Please specify the number of posters you would ike and include 25¢ for postage and handling (Tape quarter to a card.)

I would like _____ copies of the Dangerous Toys poster.